					DEPARTMEN [*]	T OF N	OF UTAH IATURAL RES ., GAS AND I				AMEN	FC IDED REPC	RM 3	
		APPI	LICATION F	OR	PERMIT TO DRIL	.L				1. WELL NAME and		R 2-36J1CS		
2. TYPE	OF WORK	RILL NEW WELL (I	REENTER	R P&	A WELL DEEP	PEN WEL	ц()			3. FIELD OR WILDO		L BUTTES		
4. TYPE	OF WELL	Gas	Well Co	nalhe	ed Methane Well: NO					5. UNIT or COMMUI		TION AGR	EEMENT	NAME
6. NAME	OF OPERATOR	₹								7. OPERATOR PHO	NE			
8. ADDRI	ESS OF OPERA		RR-MCGEE OIL	& G	AS ONSHORE, L.P.					9. OPERATOR E-MA		29-6515		
10 MTNF	RAL LEASE N		P.O. Box 173779	9, De	enver, CO, 80217 11. MINERAL OWN	FDSHTI	D			julie.ja		@anadarko	.com	
	L, INDIAN, OF				-	DIAN (STATE (FEE			DIAN (STATI		FEE 💮
13. NAM	E OF SURFACE	OWNER (if box 1	12 = 'fee')							14. SURFACE OWNI	ER PHO	NE (if box	12 = 'fe	e')
15. ADDI	RESS OF SURF	ACE OWNER (if b	ox 12 = 'fee')							16. SURFACE OWNI	ER E-MA	AIL (if box	12 = 'fe	ee')
				_	18. INTEND TO CO	MMING	ELE BRODUCT	TON EDO	м	19. SLANT				
	AN ALLOTTEE 2 = 'INDIAN')	OR TRIBE NAME			MULTIPLE FORMAT	TIONS			_			_		_
					YES (Submit	Commin	ngling Applicat	ion) NO	<u> </u>	VERTICAL DIR	RECTION	AL 📵	HORIZON	ITAL ()
20. LOC	ATION OF WE	LL		FO	OTAGES	Q	TR-QTR	SECT	TION	TOWNSHIP	R	ANGE	MEI	RIDIAN
LOCATI	ON AT SURFAC	CE	124	7 FS	SL 2113 FEL		SWSE	36	6	9.0 S	2	2.0 E		S
Top of L	Jppermost Pro	ducing Zone	207	1 FS	SL 1809 FEL		NWSE	36	6	9.0 S	2	2.0 E		S
At Total	Depth		207	1 FS	SL 1809 FEL		NWSE	36	6	9.0 S	2	2.0 E		S
21. COU	NTY	UINTAH			22. DISTANCE TO I		ST LEASE LIN 1809	E (Feet)		23. NUMBER OF AC		DRILLING 40	UNIT	
					25. DISTANCE TO I			AME POO)L	26. PROPOSED DEP		T 10 00		
27 ELEV	ATION - GROU	IND I EVEL		_	28. BOND NUMBER	1	123				: 8779	TVD: 86	+5	
Z7. ELEV	ATION - GROC	4973			28. BOND NUMBER		013542			29. SOURCE OF DRI WATER RIGHTS AP	PROVAI		IF APPL	ICABLE
					Hole, Casing	, and (Cement Inf	ormatio	n					
String	Hole Size	Casing Size			ight Grade & T					Cement		Sacks	Yield	Weight
Surf	11	8.625	0 - 2250	28	8.0 J-55 L1	I&C	0.2	2	Type V Class G			180 270	1.15	15.8 15.8
Prod	7.875	4.5	0 - 8779	11	1.6 I-80 L7	T&C	12.	.5	Pren	nium Lite High Stre	nath	280	3.38	11.0
1100	7.075		0 0//3		1 00 2					50/50 Poz		1200	1.31	14.3
			<u> </u>		Δ	ATTACI	HMENTS	<u> </u>					<u> </u>	
	VERIFY T	HE FOLLOWIN	G ARE ATTA	СНІ	ED IN ACCORDA	NCE W	ITH THE U	TAH OIL	. AND (GAS CONSERVATI	ON GE	NERAL F	ULES	
w w	ELL PLAT OR	MAP PREPARED B	SY LICENSED S	SUR	VEYOR OR ENGINE	ER	✓ COM	IPLETE DE	RILLING	PLAN				
AF	FIDAVIT OF S	TATUS OF SURFA	CE OWNER AG	GREI	EMENT (IF FEE SUR	FACE)	FOR	4 5. IF OP	PERATO	R IS OTHER THAN TI	HE LEAS	SE OWNER	2	
DRILLED		URVEY PLAN (IF	DIRECTIONAL	LY (OR HORIZONTALLY		г торо	OGRAPHIO	CAL MAI	•				
	ina Becker			TI	I TLE Regulatory Analy	yst II			PHON	E 720 929-6086				
SIGNAT				H	ATE 05/14/2011	-				. gina.becker@anadarl	ko.com			
	MBER ASSIGN			AI	PPROVAL				1	00 in 100				
430	047516000	J000							as CD	and the				
									Perr	nit Manager				

NBU 922-36O Pad Drilling Program
1 of 4

Kerr-McGee Oil & Gas Onshore, L.P.

NBU 922-36J1CS

Surface: 1247 FSL / 2113 FEL SWSE BHL: 2071 FSL / 1809 FEL NWSE

Section 36 T9S R22E

Unitah County, Utah Mineral Lease: ML-22650

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	Resource
Uinta	0 - Surface	
Green River	1145	
Birds Nest	1425	Water
Mahogany	1799	Water
Wasatch	4223	Gas
Mesaverde	6442	Gas
MVU2	7449	Gas
MVL1	8001	Gas
TVD	8645	
TD	8779	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program</u>:

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 922-36O Pad Drilling Program 2 of 4

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 8645' TVD, approximately equals 5,521 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,619 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 922-36O Pad Drilling Program 3 of 4

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 922-36O Pad Drilling Program 4 of 4

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

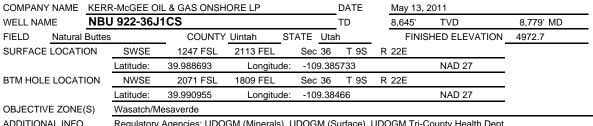
Other Information:

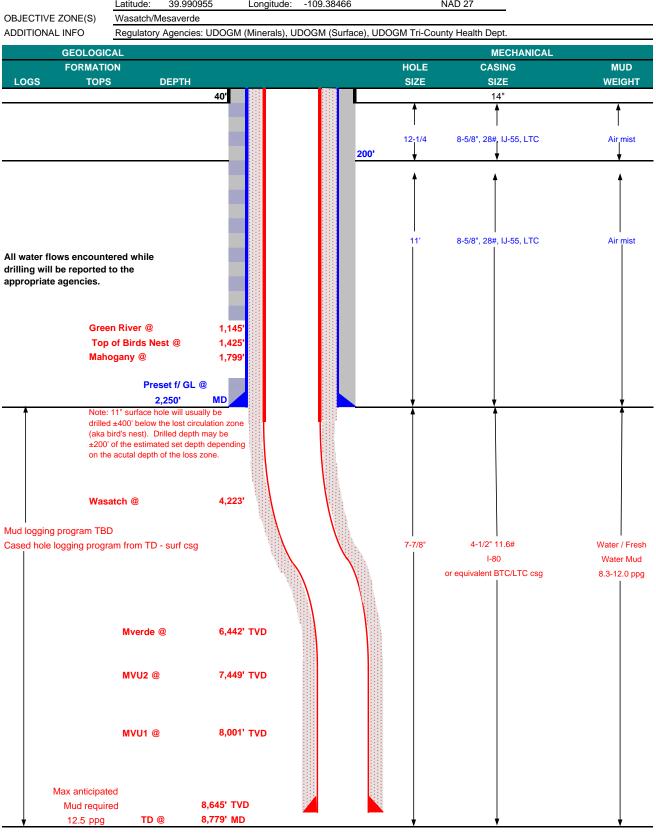
Please refer to the attached Drilling Program.

5/13/2011



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM







KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM	<u>1</u>								DESIGN	FACTORS	
										LTC	BTC
	SIZE	INT	ERVAL		WT.	GR.	CPLG.	BURST	COLLA	PSE	TENSION
CONDUCTOR	14"	()-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,250	28.00	IJ-55	LTC	2.40	1.79	6.31	N/A
								7,780	6,350	279,000	367,000
PRODUCTION	4-1/2"	0	to	8,779	11.60	I-80	LTC/BTC	1.11	1.13	3.39	4.45

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	T	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water	to surface, o	ption 2 will	be utilized		
Option 2 LEAD	1,750'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,719'	Premium Lite II +0.25 pps	280	20%	11.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,060'	50/50 Poz/G + 10% salt + 2% gel	1,200	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

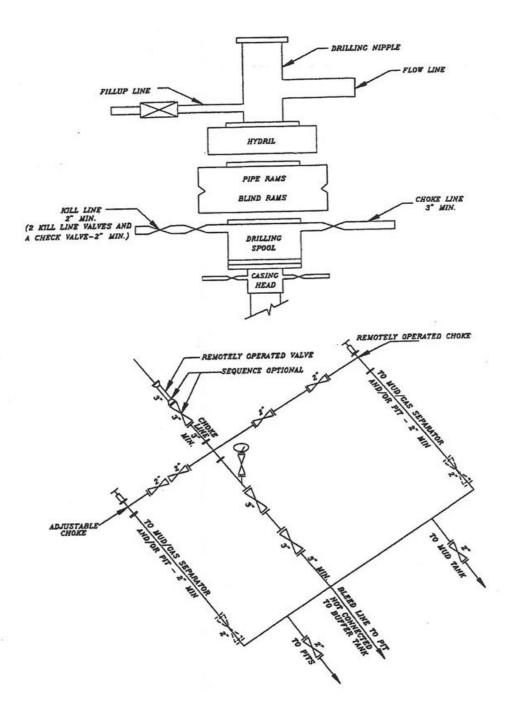
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

	Surveys will be taken at 1,000' minimum intervals.	
	Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.	
LING	ENGINEER:	DATE:

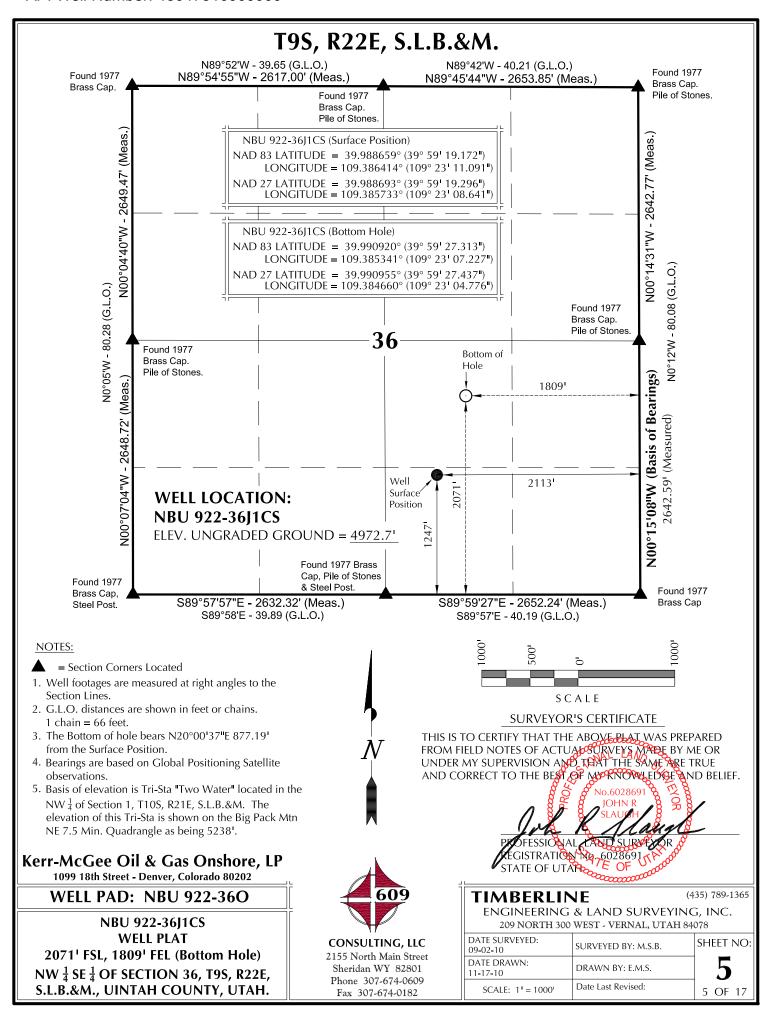
DRILLING ENGINEER:		DATE:	
	Nick Spence / Emile Goodwin	•	
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young	•	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 922-36J1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



			RFACE POSITIC					OTTOM HOLE		
WELL NAME	NAE			D27	FOOTAGES		D83	NAE		FOOTAGES
NBU	LATITUDE 39°59'19.313"	LONGITUDE 109°23'10.611'	39°59'19.436"	LONGITUDE 109°23'08.160"	1261 FSL	LATITUDE 39°59'20.772"	LONGITUDE 109°23'07.287"	LATITUDE 39°59'20.896"	LONGITUDE 109°23'04.836"	
922-36J4CS	39.988698°	109.386281°	39.988732°	109.385600°	2075' FEL	39.989103°	109.385357°	39.989138°	109.384677°	1816¹ FEL
NBU 922-36O1BS	39°59'19.277" 39.988688°	109°23'10.731'	39°59'19.401" 39.988723°		1257' FSL	39°59'17.502" 39.988195°	109°23'07.259"	39°59'17.626" 39.988229°	109°23'04.808"	
922-3601BS NBU	39.988688° 39°59'19.242"	109.386314° 109°23'10.851'		109.385633° 109°23'08.400"	2085' FEL 1254' FSL	39.988195° 39°59'24.043"	109.385350° 109°23'07.302"		109.384669° 109°23'04.851"	1815' FEL 1740' FSL
922-36J4BS	39.988678°	109.386348°	39.988713°	109.385667°	2094' FEL	39.990012°	109.385362°	39.990046°	109.384681°	1816' FEL
NBU 022-36O4BS	39°59'19.207" 39.988669°	109°23'10.971' 109.386381°	39°59'19.331" 39.988703°	109°23'08.520" 109.385700°	1250' FSL 2103' FEL	39°59'10.952" 39.986375°	109°23'07.216" 109.385338°	39°59'11.075" 39.986410°	109°23'04.765" 109.384657°	
1BU	39°59'19.172"	109.386381° 109°23'11.091'			1247' FSL	39°59'27.313"	109.385338° 109°23'07.227"		109.384657° 109°23'04.776"	1814' FEL 2071' FSL
22-36J1CS	39.988659°	109.386414°	39.988693°	109.385733°	2113' FEL	39.990920°	109.385341°	39.990955°	109.384660°	1809' FEL
NBU 122-36O	39°59'18.765" 39.988546°	109°23'11.148' 109.386430°	39°59'18.888" 39.988580°	109°23'08.697" 109.385749°	1205' FSL 2117' FEL					
	1 2 3 1 3 0 0 3 1 0	109.900430		COORDINATES		Position to Bot	om Hole			
WELL NAME	NORTH	EAST WI		ORTH EAS		NAME NOR		WELL NAM	1E NORTH	EAST
IBU	148.01	258.71 NB	- 1 -	179.5' 270.	51 NBU	486	.1' 275.9'	NBU	-835.3	293.1
22-36J4CS		922	2-36O1BS		922-30	6J4BS		922-36O4B	SS	
VELL NAME BU	NORTH	EAST					/ ,	, <u>,</u>	à /	
22-36J1CS	824.2	300.2					1	,		
	SCALE		7. 6 Ct is 4. 6 Ct is 4. 6 Ct is 4. 6 Ct.	12. (b)	S. o.	42=20.0103	7.47" 27" 140m 1	1 129, 42, 39, 17, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		,
	THE SE ¼ OF S.L.B.&M. W GLOBAL PO	EARINGS IS TH SECTION 36, HICH IS TAKE SSITIONING S	en from ^ Atellite N00°15'08"W		10 923 4 32,36 36/7	181 923 160 185 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N. 10 10 10 10 10 10 10 10 10 10 10 10 10	75 Solton	160 Act.	
WELL	THE SE ¼ OF S.L.B.&M. W GLOBAL PO	AGAS Ons The SECTION 36, WHICH IS TAKE SITIONING S. ONS TO BEAR ON	shore, LP 80202 36O PLAT	09°07'22"N 09°07'22"N 07=249.1227'S	609 ULTING, LL	EXISTING WELL: NBU 922-360 © CONTROL OF THE PROPERTY OF THE PR	AZ=160.66472° AZ=160.70°20'07"E - 885.26' HOIE) MBERL ENGINEERIN	INE	SURVEYING RNAL, UTAH 840	35) 789-1365 G, INC.
WELL WELL	Gee Oil & Bith Street - De L PAD - No. PAD INTE	Gas Ons on the section of the sectio	shore, LP 80202 36O PLAT	CONSI 2155 No.	609 ULTING, LL orth Main Stre	EXISTING WELL: NBU 922-360 © CONTROL OF THE PROPERTY OF THE PR	IMBERL ENGINEERIN 209 NORTH: E SURVEYED: 2-10 E DRAWN:	INE IG & LAND 300 WEST - VER SURVEYED B	Good 19.3.56 Bottom Hole (4. SURVEYINC RNAL, UTAH 840 BY: M.S.B.	35) 789-1365 G, INC.
WELL WELL NBU 9 NBU 9 LOCAT	Gee Oil & BELL PAD - No. PAD INTE WELLS - NBU 922-36O1BS,	AGAS Ons ACCAS O	Shore, LP 80202 36O PLAT , 611CS R22E,	CONSI 2155 No. Sherid. Phone	609 ULTING, LL	EXISTING WELL: NBU 922-360 ® Output Date of the second o	IMBERL ENGINEERIN 209 NORTH: E SURVEYED: 2-10	INE IG & LAND 300 WEST - VER	SURVEYING RNAL, UTAH 840 BY: M.S.B.	35) 789-1365 G, INC.

<:\ANADARKO\2010_48_NBU_FOCUS_SEC_36-922\DWGS\NBU 922-360\NBU_</p>

1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36O

WELL PAD - LOCATION LAYOUT NBU 922-36J4CS, NBU 922-36O1BS, NBU 922-36J4BS, NBU 922-36O4BS & NBU 922-36J1CS LOCATED IN SECTION 36, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

+/- 11,020 C.Y. **RESERVE PIT CAPACITY (2' OF FREEBOARD)** +/- 42,290 BARRELS

TIMBERLINE

(435) 789-1365 ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078



60¹ HORIZONTAL E

SCALE:

REVISED:

21 CONTOURS

1"=60' DATE: 12/3/10 SHEET NO:

7 OF 17

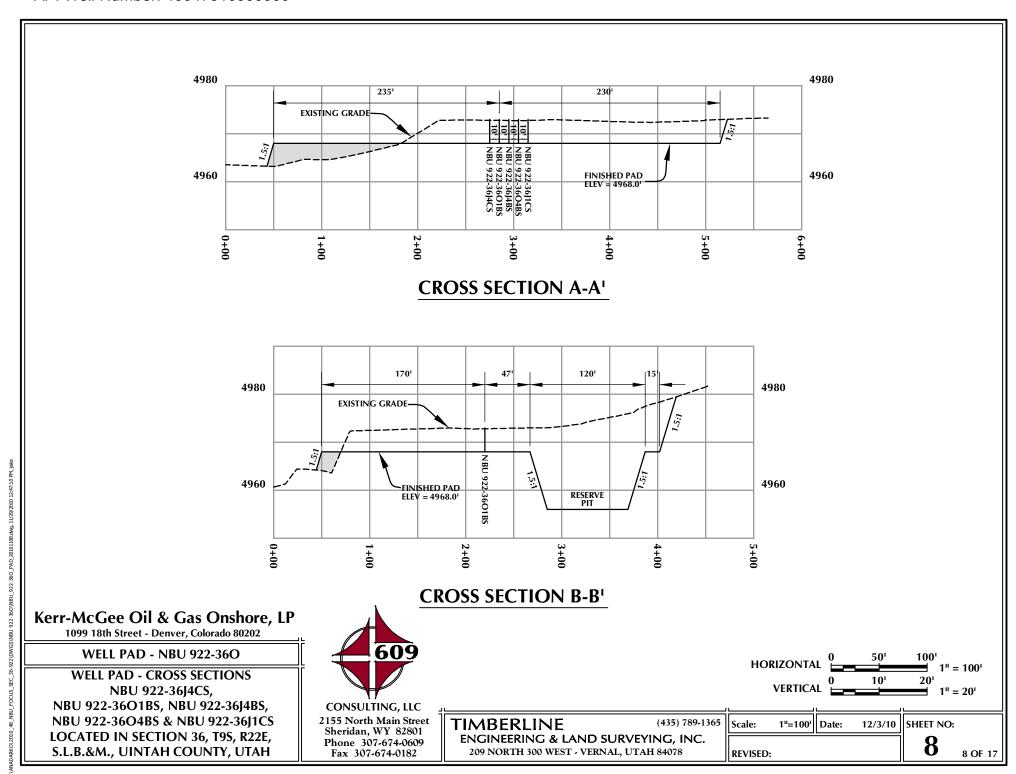
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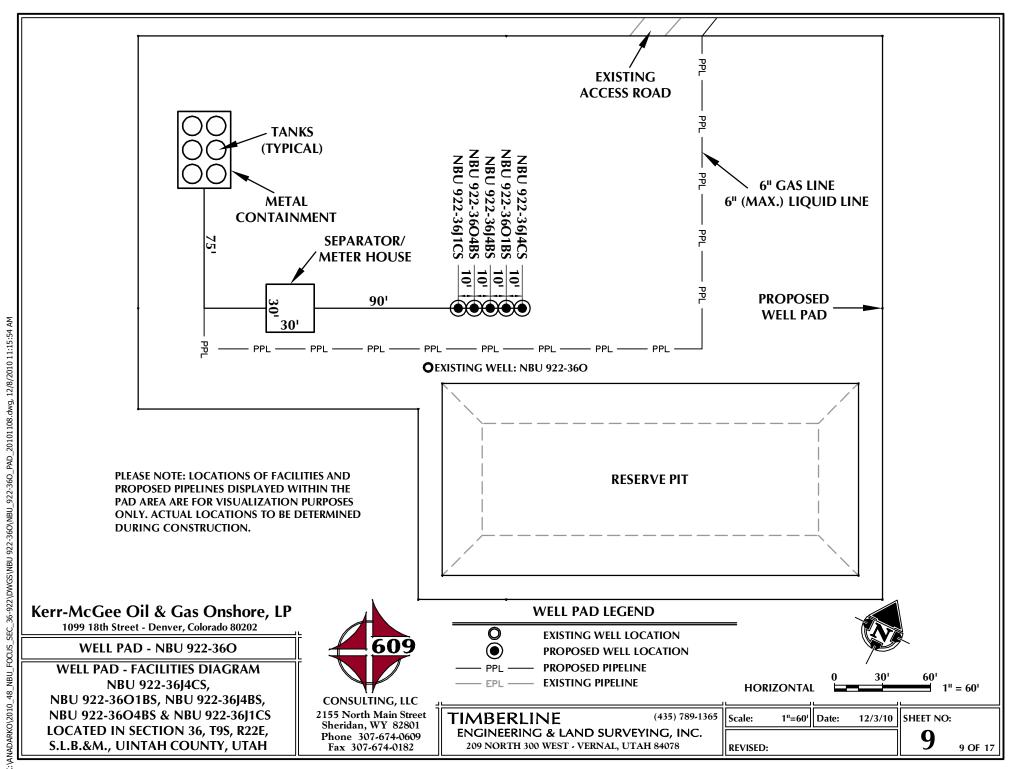
CONSULTING, LLC

2155 North Main Street

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182





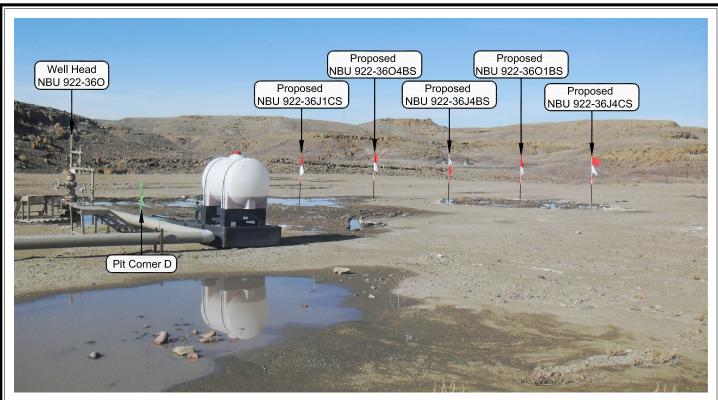


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-36O

LOCATION PHOTOS
NBU 922-36J4CS,
NBU 922-36O1BS, NBU 922-36J4BS,
NBU 922-36O4BS & NBU 922-36J1CS
LOCATED IN SECTION 36, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



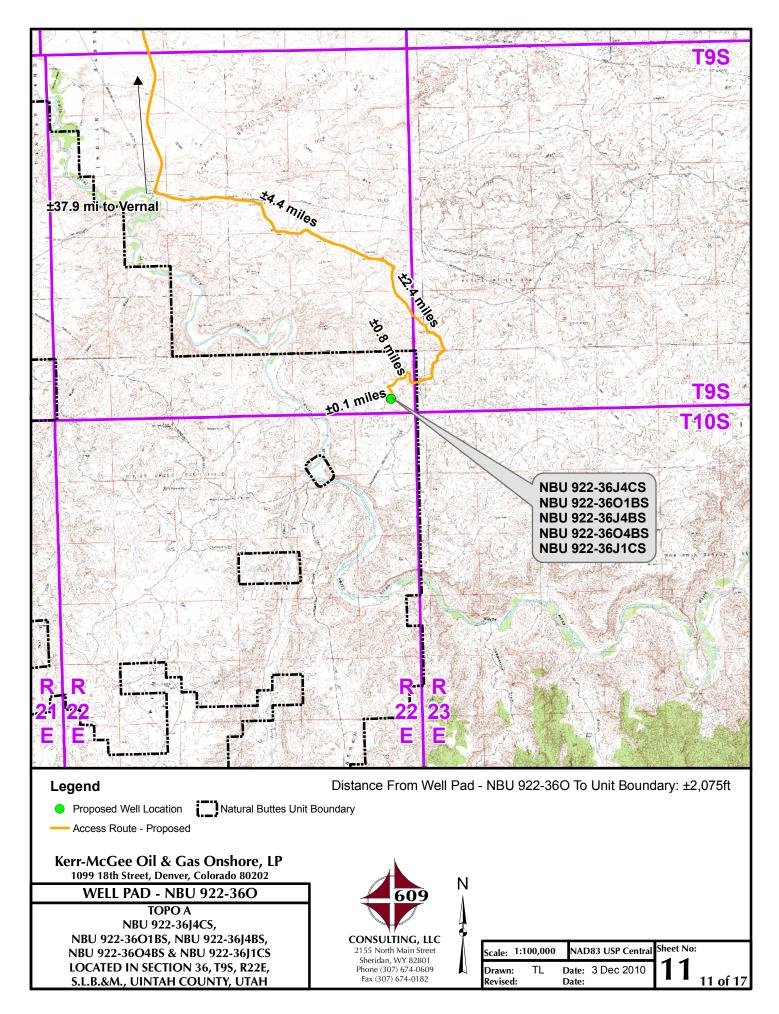
CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

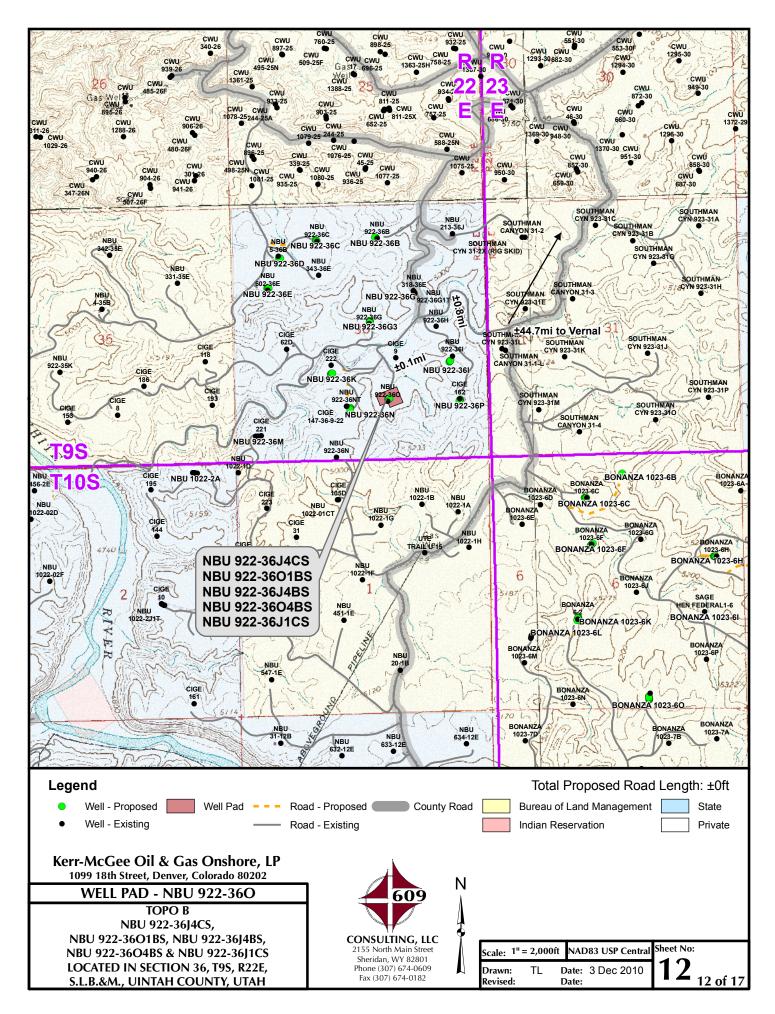
TIMBERLINE

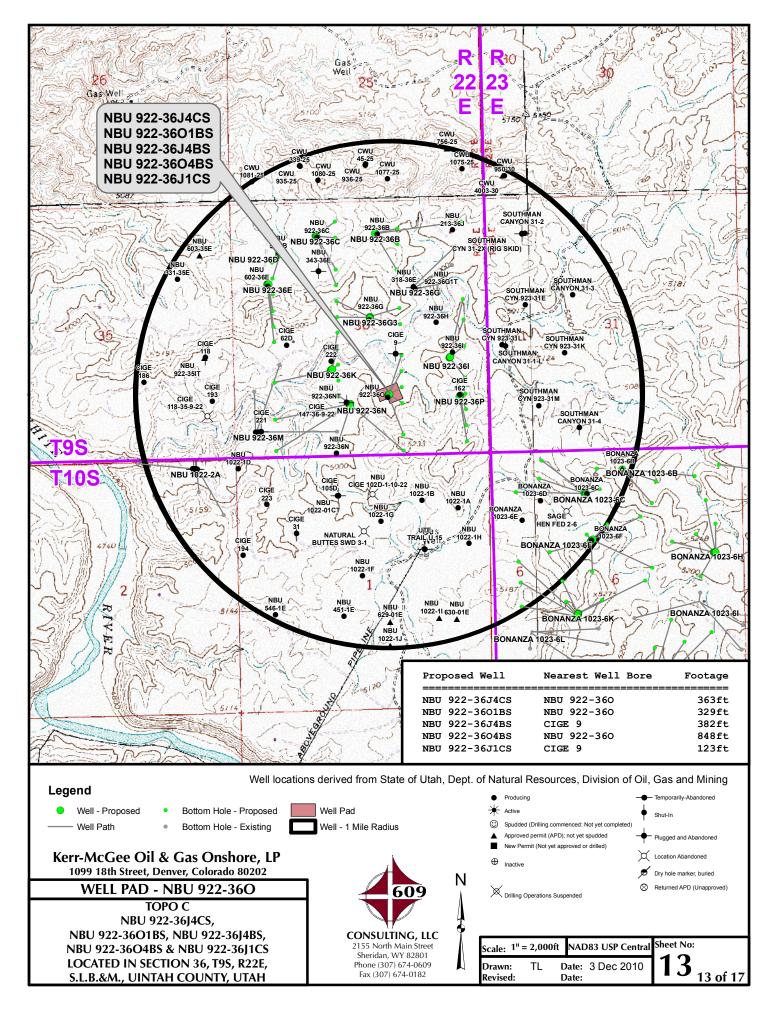
(435) 789-1365

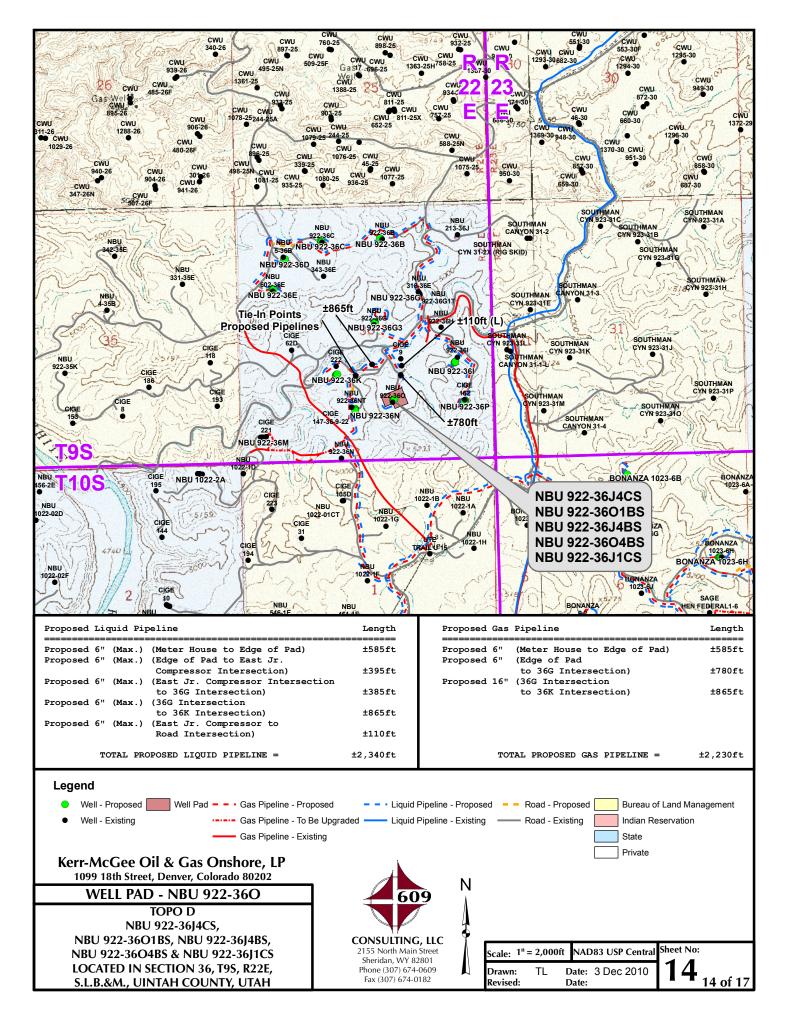
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

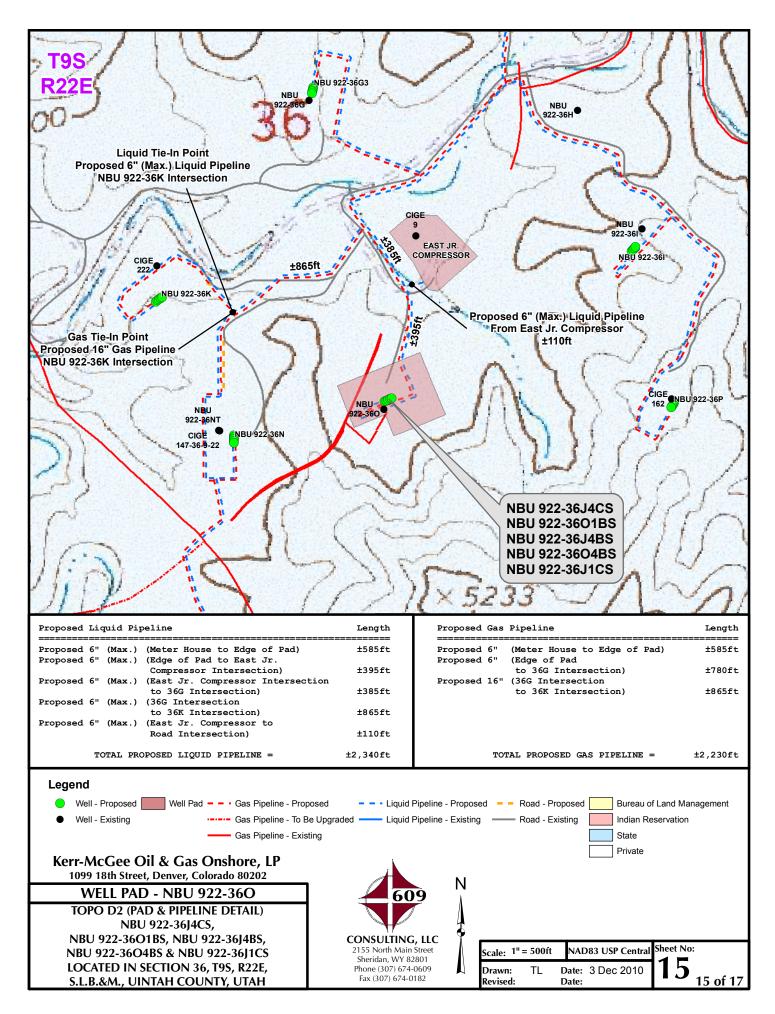
200 11011111 300	TIDOL TERMINE, CHIMIC,	0,0
DATE PHOTOS TAKEN: 11-17-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 11-17-10	DRAWN BY: E.M.S.	10
Date Last Revised:		10 OF 17

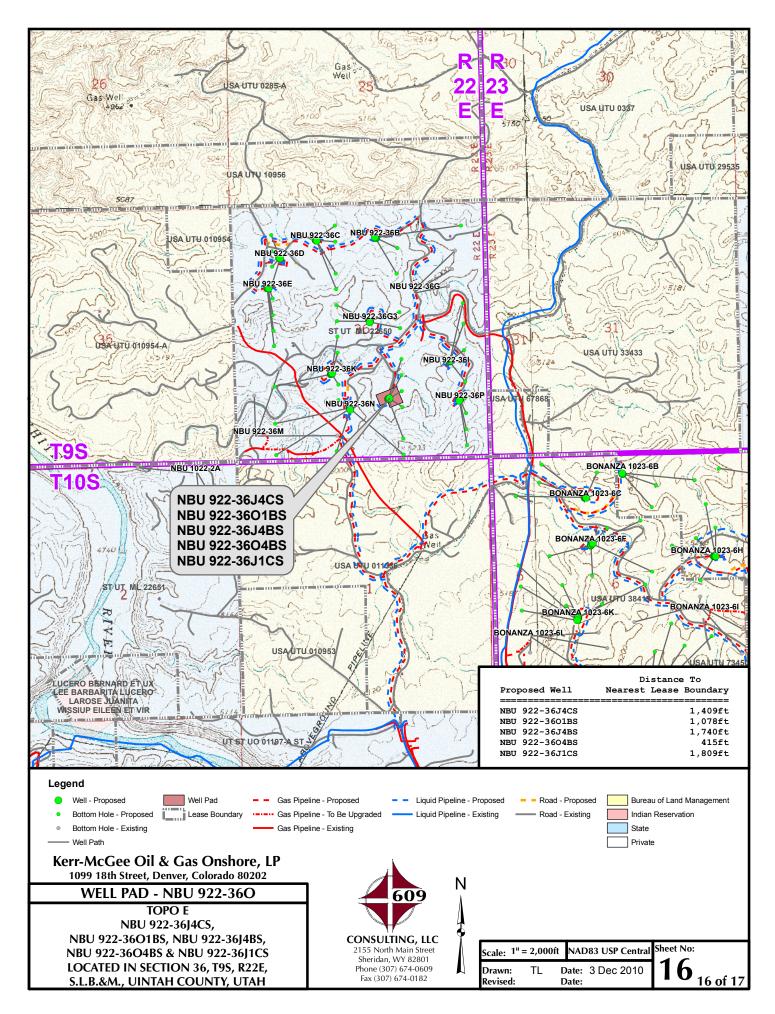












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 922-36O WELLS – NBU 922-36J4CS, NBU 922-36O1BS, NBU 922-36J4BS, NBU 922-36O4BS & NBU 922-36J1CS Section 36, T9S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Fidlar Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge at the White River. Exit left and proceed in a southeasterly direction along the Fidlar Road approximately 4.4 miles to the intersection of the Seven Sisters Road (County B Road 3420). Exit right and proceed in a southerly, then southeasterly direction along the Seven Sisters Road approximately 2.4 miles to a service road to the southwest. Exit right and proceed in a southwesterly, then northerly, then southwesterly direction along the service road approximately 0.8 miles to an access road to the southeast. Exit left and proceed in a southeasterly, then southwesterly direction along the access road approximately 0.1 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 45.6 miles in a southerly direction.

SHEET 17 OF 17

API Well Number: 430475160000@oject: Uintah County, UT UTM12 Scientific Drilling

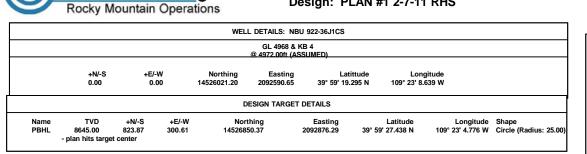
Site: NBU 922-360 PAD

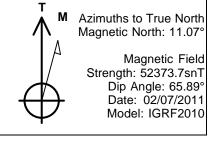
Well: NBU 922-36J1CS

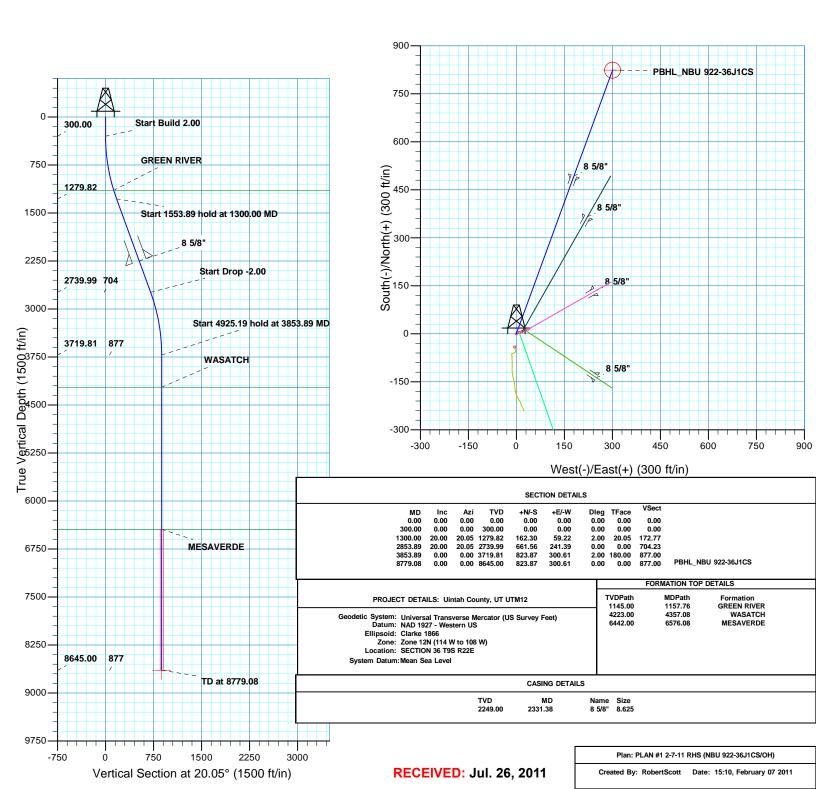
Wellbore: OH

Design: PLAN #1 2-7-11 RHS











Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

ОН

Plan: PLAN #1 2-7-11 RHS

Standard Planning Report

07 February, 2011





SDI Planning Report



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

Project:

NBU 922-360 PAD Site: Well: NBU 922-36J1CS

Wellbore: ОН

Design: PLAN #1 2-7-11 RHS **Local Co-ordinate Reference:**

Survey Calculation Method:

TVD Reference:

MD Reference:

North Reference:

Well NBU 922-36J1CS GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

Minimum Curvature

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum: Mean Sea Level

NBU 922-360 PAD, SECTION 36 T9S R22E Site

Northing: 14,526,021.20 usft Site Position: Latitude: 39° 59' 19.295 N From: Lat/Long Easting: 2,092,590.64 usft Longitude: 109° 23' 8.639 W 0.00 ft Slot Radius: 13.200 in **Grid Convergence:** 1.04° **Position Uncertainty:**

Well NBU 922-36J1CS, 1247 FSL 2133 FEL **Well Position** +N/-S 0.00 ft 14,526,021.20 usft 39° 59' 19.295 N Northing: Latitude: +E/-W 0.00 ft Easting: 2,092,590.64 usft Longitude: 109° 23' 8.639 W **Position Uncertainty** 0.00 ft Wellhead Elevation: **Ground Level:** 4.968.00 ft

Wellbore ОН Declination Field Strength Magnetics **Model Name** Sample Date Dip Angle (°) (°) (nT) IGRF2010 02/07/2011 11.07 65.89 52,374

PLAN #1 2-7-11 RHS Design **Audit Notes:** PLAN 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 20.05

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	20.05	1,279.82	162.30	59.22	2.00	2.00	0.00	20.05	
2,853.89	20.00	20.05	2,739.99	661.56	241.39	0.00	0.00	0.00	0.00	
3,853.89	0.00	0.00	3,719.81	823.87	300.61	2.00	-2.00	0.00	180.00	
8,779.08	0.00	0.00	8,645.00	823.87	300.61	0.00	0.00	0.00	0.00 I	PBHL_NBU 922-36J1



SDI Planning Report



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

Site: NBU 922-360 PAD Well: NBU 922-36J1CS

Wellbore: ОН

Design: PLAN #1 2-7-11 RHS Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

Minimum Curvature

ad Currer									
ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00		0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00		0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00		0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build									
400.00	2.00	20.05	399.98	1.64	0.60	1.75	2.00	2.00	0.00
500.00	4.00	20.05	499.84	6.56	2.39	6.98	2.00	2.00	0.00
600.00		20.05	599.45	14.74	5.38	15.69	2.00	2.00	0.00
700.00		20.05	698.70	26.19	9.56	27.88	2.00	2.00	0.00
800.00		20.05	797.47	40.89	14.92	43.52	2.00	2.00	0.00
900.00	12.00	20.05	895.62	58.81	21.46	62.60	2.00	2.00	0.00
1 000 00	14.00	20.05	993.06	79.94	29.17	0F 10	2.00	2.00	0.00
1,000.00 1,100.00		20.05	1,089.64	104.25	38.04	85.10 110.98	2.00	2.00 2.00	0.00
1,157.76		20.05	1,145.00	119.73	43.69	127.46	2.00	2.00	0.00
		20.03	1,143.00	119.75	+5.05	127.40	2.00	2.00	0.00
1,200.00		20.05	1,185.27	131.72	48.06	140.21	2.00	2.00	0.00
1,300.00		20.05	1,279.82	162.30	59.22	172.77	2.00	2.00	0.00
	.89 hold at 1300.00		1,279.02	102.50	33.22	172.77	2.00	2.00	0.00
Start 1993	.09 HOIG AL 1300.00	UIVID							
1,400.00	20.00	20.05	1,373.78	194.43	70.94	206.97	0.00	0.00	0.00
1,500.00		20.05	1,467.75	226.56	82.67	241.17	0.00	0.00	0.00
1,600.00		20.05	1,561.72	258.69	94.39	275.37	0.00	0.00	0.00
1,700.00		20.05	1,655.69	290.82	106.12	309.58	0.00	0.00	0.00
1,800.00	20.00	20.05	1,749.66	322.95	117.84	343.78	0.00	0.00	0.00
1,900.00	20.00	20.05	1,843.63	355.08	129.56	377.98	0.00	0.00	0.00
2,000.00	20.00	20.05	1,937.60	387.21	141.29	412.18	0.00	0.00	0.00
2,100.00	20.00	20.05	2,031.57	419.34	153.01	446.38	0.00	0.00	0.00
2,200.00	20.00	20.05	2,125.54	451.47	164.73	480.59	0.00	0.00	0.00
2,300.00	20.00	20.05	2,219.51	483.60	176.46	514.79	0.00	0.00	0.00
2,331.38	3 20.00	20.05	2,249.00	493.68	180.14	525.52	0.00	0.00	0.00
8 5/8"									
2,400.00	20.00	20.05	2,313.48	515.73	188.18	548.99	0.00	0.00	0.00
2,500.00		20.05	2,407.45	547.86	199.90	583.19	0.00	0.00	0.00
2,600.00	20.00	20.05	2,501.42	579.99	211.63	617.39	0.00	0.00	0.00
2,700.00	20.00	20.05	2,595.39	612.12	223.35	651.60	0.00	0.00	0.00
2,800.00	20.00	20.05	2,689.35	644.25	235.08	685.80	0.00	0.00	0.00
2,853.89		20.05	2,739.99	661.56	241.39	704.23	0.00	0.00	0.00
Start Drop			, 22.23						
2,900.00		20.05	2,783.45	676.05	246.68	719.65	2.00	-2.00	0.00
3,000.00		20.05	2,878.51	705.20	257.32	750.68	2.00	-2.00	0.00
3,100.00		20.05	2,974.59	731.22	266.81	778.37	2.00	-2.00	0.00
3,200.00			3,071.58	754.07	275.14	802.70	2.00	-2.00	0.00
3,200.00		20.05 20.05	3,071.58	754.07 773.72	275.14 282.32	802.70 823.62	2.00	-2.00 -2.00	0.00
3,400.00		20.05	3,267.82	773.72	202.32 288.31	841.12	2.00	-2.00 -2.00	0.00
3,500.00		20.05	3,366.82	803.36	293.13	855.17	2.00	-2.00	0.00
3,600.00		20.05	3,466.25	813.30	296.76	865.75	2.00	-2.00	0.00
3,700.00		20.05	3,565.99	819.98	299.20	872.86	2.00	-2.00	0.00
3,800.00		20.05	3,665.92	823.39	300.44	876.49	2.00	-2.00	0.00
3,853.89		0.00	3,719.81	823.87	300.61	877.00	2.00	-2.00	0.00
	.19 hold at 3853.89		2 705 00	000.07	200.04	077.00	0.00	0.00	0.00
3,900.00		0.00	3,765.92	823.87	300.61	877.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,865.92	823.87	300.61	877.00	0.00	0.00	0.00



SDI Planning Report



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

Site: NBU 922-360 PAD Well: NBU 922-36J1CS

Wellbore: ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

True Minimum Curvature

4200.00	Design:	PLAN #1 2-7-	11 RHS							
Depth Inclination Azimuth Cr) (rt) (rt)	Planned Survey									
4,200.00	Depth			Depth			Section	Rate	Rate	Rate
4,300.00 0.00 0.00 4,165.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,365.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 0.00 4,265.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 0.00 4,665.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 0.00 4,665.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	4,100.00	0.00	0.00	3,965.92	823.87	300.61	877.00	0.00	0.00	0.00
	4,200.00		0.00							0.00
WASATCH										0.00
4,400.00		0.00	0.00	4,223.00	823.87	300.61	877.00	0.00	0.00	0.00
4,500.00 0.00 0.00 4,365.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,465.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,465.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,460.00 0.00 0.00 4,466.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,460.00 0.00 0.00 4,466.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,460.00 0.00 0.00 4,466.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 5,000.00 0.00 0.										
4,600.00 0.00 0.00 4,466.92 823.87 300.61 877.00 0.00 0.00 0.00 4,700.00 0.00 4,700.00 0.00 4,700.00 0.00 4,700.00 0.00 4,700.00 0.00 0.00 4,700.00 0.00 0.00 0.00 0.00 4,700.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	4,400.00	0.00	0.00	4,265.92	823.87	300.61	877.00	0.00	0.00	0.00
4,700.00 0.00 0.00 4,666.92 823.87 300.61 877.00 0.00 0.00 0.00 4,800.00 0.00 4,866.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,800.00 0.00 4,765.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 5,000.00 0.00 0.	4,500.00		0.00							0.00
4,800.00 0.00 0.00 4,665.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 4,900.00 0.00 4,765.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00 5,000.00 0.00 0.	4,600.00	0.00	0.00			300.61		0.00		0.00
4,900.00 0.00 4,765.92 823.87 300.61 877.00 0.00 0.00 0.00 5,000.00 0.00 0.00 4,865.92 823.87 300.61 877.00 0.00										0.00
\$5,000.00										
5,100.00 0.00 0.00 4,965.92 823.87 300.61 877.00 0.00 0.00 0.00 5,200.00 0.00 0.00 5,065.92 823.87 300.61 877.00 0.00 0.00 0.00 5,400.00 0.00 0.00 5,265.92 823.87 300.61 877.00 0.00 0.00 0.00 5,500.00 0.00 0.00 5,265.92 823.87 300.61 877.00 0.00 0.00 0.00 5,600.00 0.00 0.00 5,465.92 823.87 300.61 877.00 0.00 0.00 0.00 5,700.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,800.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,900.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00	4,900.00	0.00	0.00	4,765.92	823.87	300.61	877.00	0.00	0.00	0.00
5,100.00 0.00 0.00 4,965.92 823.87 300.61 877.00 0.00 0.00 0.00 5,200.00 0.00 0.00 5,065.92 823.87 300.61 877.00 0.00 0.00 0.00 5,400.00 0.00 0.00 5,265.92 823.87 300.61 877.00 0.00 0.00 0.00 5,500.00 0.00 0.00 5,265.92 823.87 300.61 877.00 0.00 0.00 0.00 5,600.00 0.00 0.00 5,465.92 823.87 300.61 877.00 0.00 0.00 0.00 5,700.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,800.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,900.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 0.00	5,000.00	0.00	0.00	4,865.92	823.87	300.61	877.00	0.00	0.00	0.00
5,200,00 0.00 5,065,92 823,87 300,61 877,00 0.00 0.00 0.00 5,300,00 0.00 0.00 5,165,92 823,87 300,61 877,00 0.00 0.00 0.00 5,500,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 0.00 5,500,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 0.00 5,700,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 0.00 5,800,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 5,665,92 823,87 300,61 877,00 0.00 0.00 6,600,00 0.00 0.00 5,665,92 823,87 300,61 <t< td=""><td>· ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.00</td></t<>	· ·									0.00
5,300.00 0.00 5,165.92 823.87 300.61 877.00 0.00 0.00 0.00 5,400.00 0.00 0.00 5,265.92 823.87 300.61 877.00 0.00 0.00 0.00 5,500.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,700.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,800.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 5,800.00 0.00 0.00 5,665.92 823.87 300.61 877.00 0.00 0.00 0.00 6,000.00 0.00 0.00 5,765.92 823.87 300.61 877.00 0.00 0.00 0.00 6,200.00 0.00 0.00 5,865.92 823.87 300.61 877.00 0.00 0.00 0.00 6,200.00									0.00	0.00
5,500.00 0.00 0.00 5,365.92 823.87 300.61 877.00 0.00 <td>5,300.00</td> <td>0.00</td> <td>0.00</td> <td>5,165.92</td> <td>823.87</td> <td>300.61</td> <td>877.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	5,300.00	0.00	0.00	5,165.92	823.87	300.61	877.00	0.00	0.00	0.00
\$\begin{array}{cccccccccccccccccccccccccccccccccccc	5,400.00	0.00	0.00	5,265.92	823.87	300.61	877.00	0.00	0.00	0.00
5,600.00 0.00 0.00 5,465.92 823.87 300.61 877.00 0.00 <td>5 500 00</td> <td>0.00</td> <td>0.00</td> <td>5 365 92</td> <td>823 87</td> <td>300 61</td> <td>877 00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	5 500 00	0.00	0.00	5 365 92	823 87	300 61	877 00	0.00	0.00	0.00
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SDI Planning Report



Database: Company: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

NBU 922-360 PAD Site: Well: NBU 922-36J1CS

Wellbore: ОН

Design: PLAN #1 2-7-11 RHS Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:

MD Reference:

North Reference:

Well NBU 922-36J1CS GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

True

Minimum Curvature

Planned Survey

Measured Vertical Vertical Dogleg Build Turn Depth Depth +N/-S +E/-W Section Rate Rate Rate Inclination Azimuth (°/100ft) (°/100ft) (°/100ft) (ft) (ft) (ft) (ft) (ft) (°) (°)

TD at 8779.08 - PBHL_NBU 922-36J1CS

Design Targets Target Name - hit/miss target Dip Dir. TVD +N/-S +E/-W Easting Dip Angle Northing - Shape (ft) (ft) (usft) (usft) (°) (°) (ft) Longitude Latitude PBHL_NBU 922-36J1C5 0.00 0.00 8,645.00 823.87 300.61 14,526,850.38 2,092,876.29 39° 59' 27.438 N 109° 23' 4.776 W - plan hits target center - Circle (radius 25.00)

Casing Points Measured Vertical Casing Hole Depth Depth Diameter Diameter (ft) (in) (in) (ft) Name 2.331.38 2,249.00 8 5/8" 8.625 11.000

Formations Measured Vertical Dip Depth Depth Dip Direction (ft) (ft) (°) Name Lithology (°) 1,157.76 1,141.00 GREEN RIVER 4,357.08 4,219.00 WASATCH 6,576.08 6,438.00 MESAVERDE

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,300.00	1,279.82	162.30	59.22	Start 1553.89 hold at 1300.00 MD
2,853.89	2,739.99	661.56	241.39	Start Drop -2.00
3,853.89	3,719.81	823.87	300.61	Start 4925.19 hold at 3853.89 MD
8,779.08	8,645.00	823.87	300.61	TD at 8779.08



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

OH

Plan: PLAN #1 2-7-11 RHS

Standard Planning Report - Geographic

07 February, 2011





SDI Planning Report - Geographic



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12

NBU 922-360 PAD Site:

Well: NBU 922-36J1CS

Wellbore: ОН

Project:

Design: PLAN #1 2-7-11 RHS **Local Co-ordinate Reference:**

TVD Reference:

MD Reference:

Well NBU 922-36J1CS GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

North Reference:

Survey Calculation Method: Minimum Curvature

Project Uintah County, UT UTM12

Universal Transverse Mercator (US Survey Feet) Map System:

NAD 1927 - Western US Geo Datum: Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level System Datum:

Site NBU 922-360 PAD, SECTION 36 T9S R22E

14,526,021.20 usft Site Position: Northing: Latitude: 39° 59' 19.295 N 109° 23' 8.639 W 2,092,590.64 usft Lat/Long Easting: From: Longitude: 0.00 ft Slot Radius: 13.200 in 1.04 9 **Position Uncertainty: Grid Convergence:**

NBU 922-36J1CS, 1247 FSL 2133 FEL Well **Well Position** +N/-S 0.00 ft Northing: 14,526,021.20 usft Latitude: 39° 59' 19.295 N +E/-W 0.00 ft 2,092,590.64 usft Longitude: 109° 23' 8.639 W Easting: 4,968.00 ft 0.00 ft Wellhead Elevation: **Position Uncertainty Ground Level:**

ОН Wellbore Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (nT) 65.89 IGRF2010 02/07/2011 11.07 52,374

PLAN #1 2-7-11 RHS Design **Audit Notes:** PLAN 0.00 Version: Phase: Tie On Depth: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 20.05

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	20.05	1,279.82	162.30	59.22	2.00	2.00	0.00	20.05	
2,853.89	20.00	20.05	2,739.99	661.56	241.39	0.00	0.00	0.00	0.00	
3,853.89	0.00	0.00	3,719.81	823.87	300.61	2.00	-2.00	0.00	180.00	
8,779.08	0.00	0.00	8,645.00	823.87	300.61	0.00	0.00	0.00	0.00 F	PBHL_NBU 922-36J1



SDIPlanning Report - Geographic



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 922-36O PAD

 Well:
 NBU 922-36J1CS

Wellbore: OH

Design: PLAN #1 2-7-11 RHS

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

True

Minimum Curvature

Design:	PLAN	N #1 2-7-11 R	HS						
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,526,021.20	2,092,590.64	39° 59' 19.295 N	109° 23' 8.639 W
100.00	0.00	0.00	100.00	0.00	0.00	14,526,021.20	2,092,590.64	39° 59' 19.295 N	109° 23' 8.639 W
200.00	0.00	0.00	200.00	0.00	0.00	14,526,021.20	2,092,590.64	39° 59' 19.295 N	109° 23' 8.639 W
300.00	0.00	0.00	300.00	0.00	0.00	14,526,021.20	2,092,590.64	39° 59' 19.295 N	109° 23' 8.639 W
Start Bu	ild 2.00								
400.00	2.00	20.05	399.98	1.64	0.60	14,526,022.85	2,092,591.21	39° 59' 19.311 N	109° 23' 8.631 W
500.00	4.00	20.05	499.84	6.56	2.39	14,526,027.80	2,092,592.91	39° 59' 19.360 N	109° 23' 8.608 W
600.00	6.00	20.05	599.45	14.74	5.38	14,526,036.04	2,092,595.75	39° 59' 19.441 N	109° 23' 8.570 W
700.00	8.00	20.05	698.70	26.19	9.56	14,526,047.56	2,092,599.72	39° 59' 19.554 N	109° 23' 8.516 W
800.00	10.00	20.05	797.47	40.89	14.92	14,526,062.35	2,092,604.82	39° 59' 19.699 N	109° 23' 8.447 W
900.00	12.00	20.05	895.62	58.81	21.46	14,526,080.39	2,092,611.03	39° 59' 19.876 N	109° 23' 8.363 W
1,000.00	14.00	20.05	993.06	79.94	29.17	14,526,101.66	2,092,618.36	39° 59' 20.085 N	109° 23' 8.264 W
1,100.00	16.00	20.05	1,089.64	104.25	38.04	14,526,126.13	2,092,626.79	39° 59' 20.325 N	109° 23' 8.150 W
1,157.76	17.16	20.05	1,145.00	119.73	43.69	14,526,141.71	2,092,632.16	39° 59' 20.478 N	109° 23' 8.077 W
GREEN	RIVER								
1,200.00	18.00	20.05	1,185.27	131.72	48.06	14,526,153.77	2,092,636.31	39° 59' 20.597 N	109° 23' 8.021 W
1,300.00	20.00	20.05	1,279.82	162.30	59.22	14,526,184.55	2,092,646.91	39° 59' 20.899 N	109° 23' 7.878 W
Start 155	53.89 hold at	1300.00 MD							
1,400.00	20.00	20.05	1,373.78	194.43	70.94	14,526,216.89	2,092,658.05	39° 59' 21.217 N	109° 23' 7.727 W
1,500.00	20.00	20.05	1,467.75	226.56	82.67	14,526,249.22	2,092,669.19	39° 59' 21.534 N	109° 23' 7.577 W
1,600.00	20.00	20.05	1,561.72	258.69	94.39	14,526,281.56	2,092,680.33	39° 59' 21.852 N	109° 23' 7.426 W
1,700.00	20.00	20.05	1,655.69	290.82	106.12	14,526,313.90	2,092,691.47	39° 59' 22.169 N	109° 23' 7.275 W
1,800.00	20.00	20.05	1,749.66	322.95	117.84	14,526,346.23	2,092,702.61	39° 59' 22.487 N	109° 23' 7.125 W
1,900.00	20.00	20.05	1,843.63	355.08	129.56	14,526,378.57	2,092,713.75	39° 59' 22.804 N	109° 23' 6.974 W
2,000.00	20.00	20.05	1,937.60	387.21	141.29	14,526,410.91	2,092,724.89	39° 59' 23.122 N	109° 23' 6.823 W
2,100.00	20.00	20.05	2,031.57	419.34	153.01	14,526,443.24	2,092,736.03	39° 59' 23.440 N	109° 23' 6.673 W
2,200.00	20.00	20.05	2,125.54	451.47	164.73	14,526,475.58	2,092,747.17	39° 59' 23.757 N	109° 23' 6.522 W
2,300.00	20.00	20.05	2,219.51	483.60	176.46	14,526,507.92	2,092,758.31	39° 59' 24.075 N	109° 23' 6.371 W
2,331.38	20.00	20.05	2,249.00	493.68	180.14	14,526,518.07	2,092,761.81	39° 59' 24.174 N	109° 23' 6.324 W
8 5/8"									
2,400.00	20.00	20.05	2,313.48	515.73	188.18	14,526,540.26	2,092,769.45	39° 59' 24.392 N	109° 23' 6.221 W
2,500.00	20.00	20.05	2,407.45	547.86	199.90	14,526,572.59	2,092,780.59	39° 59' 24.710 N	109° 23' 6.070 W
2,600.00	20.00	20.05	2,501.42	579.99	211.63	14,526,604.93	2,092,791.73	39° 59' 25.028 N	109° 23' 5.919 W
2,700.00	20.00	20.05	2,595.39	612.12	223.35	14,526,637.27	2,092,802.87	39° 59' 25.345 N	109° 23' 5.769 W
2,800.00	20.00	20.05	2,689.35	644.25	235.08	14,526,669.60	2,092,814.01	39° 59' 25.663 N	109° 23' 5.618 W
2,853.89	20.00	20.05	2,739.99	661.56	241.39	14,526,687.03	2,092,820.01	39° 59' 25.834 N	109° 23' 5.537 W
Start Dro	•	20.05	2 702 45	676.05	246.68	14 506 704 64	2 002 925 04	20° 50' 25 077 N	100° 22' E 460 W
2,900.00	19.08	20.05	2,783.45	676.05 705.20		14,526,701.61	2,092,825.04	39° 59' 25.977 N	109° 23' 5.469 W
3,000.00	17.08	20.05	2,878.51	705.20 731.22	257.32	14,526,730.95	2,092,835.14	39° 59' 26.265 N 39° 59' 26.522 N	109° 23' 5.332 W 109° 23' 5.210 W
3,100.00 3,200.00	15.08 13.08	20.05 20.05	2,974.59 3,071.58	731.22 754.07	266.81 275.14	14,526,757.13 14,526,780.13	2,092,844.16 2,092,852.09	39° 59′ 26.748 N	109 23 5.210 W
3,300.00	11.08	20.05	3,169.36	773.72	282.32	14,526,799.91	2,092,858.90	39° 59' 26.942 N	109° 23' 5.011 W
3,400.00	9.08	20.05	3,169.36	790.16	288.31	14,526,799.91	2,092,864.60	39° 59' 27.105 N	109° 23' 4.934 W
3,500.00	7.08		3,366.82	803.36	293.13	14,526,829.74	2,092,869.18	39° 59' 27.235 N	109° 23' 4.872 W
3,600.00	5.08		3,466.25	813.30	296.76	14,526,839.75	2,092,872.62	39° 59' 27.334 N	109° 23' 4.826 W
3,700.00	3.08		3,565.99	819.98	299.20	14,526,846.47	2,092,874.94	39° 59' 27.400 N	109° 23' 4.794 W
3,800.00	1.08		3,665.92	823.39	300.44	14,526,849.90	2,092,876.12	39° 59' 27.433 N	109° 23' 4.778 W
3,853.89	0.00		3,719.81	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
	25.19 hold at		2,0.01			,==,000.00	_,,		
3,900.00	0.00	0.00	3,765.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,000.00	0.00		3,865.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,100.00	0.00		3,965.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
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Company: Kerr McGee Oil and Gas Onshore LP

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 NBU 922-36O PAD

 Well:
 NBU 922-36J1CS

Wellbore: OH

Design: PLAN #1 2-7-11 RHS

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

True

Minimum Curvature

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
						, ,			_
4,200.00	0.00	0.00	4,065.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,300.00	0.00	0.00	4,165.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,357.08	0.00	0.00	4,223.00	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
WASATC 4,400.00	0.00	0.00	4,265.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,500.00	0.00	0.00	4,265.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,600.00	0.00	0.00	4,465.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,700.00	0.00	0.00	4,565.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,800.00	0.00	0.00	4,665.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
4,900.00	0.00	0.00	4,765.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,000.00	0.00	0.00	4,865.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,100.00	0.00	0.00	4,965.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,200.00	0.00	0.00	5,065.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,300.00	0.00	0.00	5,165.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,400.00	0.00	0.00	5,265.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,500.00	0.00	0.00	5,365.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,600.00	0.00	0.00	5,465.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,700.00	0.00	0.00	5,565.92	823.87 823.87	300.61 300.61	14,526,850.38	2,092,876.29 2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
5,800.00 5,900.00	0.00 0.00	0.00 0.00	5,665.92 5,765.92	823.87	300.61	14,526,850.38 14,526,850.38	2,092,876.29	39° 59' 27.438 N 39° 59' 27.438 N	109° 23' 4.776 W 109° 23' 4.776 W
6,000.00	0.00	0.00	5,865.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,100.00	0.00	0.00	5,965.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,200.00	0.00	0.00	6,065.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,300.00	0.00	0.00	6,165.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,400.00	0.00	0.00	6,265.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,500.00	0.00	0.00	6,365.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,576.08	0.00	0.00	6,442.00	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
MESAVE	RDE								
6,600.00	0.00	0.00	6,465.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,700.00	0.00	0.00	6,565.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,800.00	0.00	0.00	6,665.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
6,900.00	0.00	0.00	6,765.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,000.00	0.00	0.00	6,865.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,100.00	0.00	0.00	6,965.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,200.00	0.00	0.00	7,065.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,300.00	0.00	0.00	7,165.92	823.87 823.87	300.61	14,526,850.38	2,092,876.29 2,092,876.29	39° 59' 27.438 N 39° 59' 27.438 N	109° 23' 4.776 W
7,400.00 7,500.00	0.00 0.00	0.00 0.00	7,265.92 7,365.92	823.87 823.87	300.61 300.61	14,526,850.38 14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W 109° 23' 4.776 W
7,600.00	0.00	0.00	7,365.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,700.00	0.00	0.00	7,565.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,800.00	0.00	0.00	7,665.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
7,900.00	0.00	0.00	7,765.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,000.00	0.00	0.00	7,865.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,100.00	0.00	0.00	7,965.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,200.00	0.00	0.00	8,065.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,300.00	0.00	0.00	8,165.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,400.00	0.00	0.00	8,265.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,500.00	0.00	0.00	8,365.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,600.00	0.00	0.00	8,465.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,700.00	0.00	0.00	8,565.92	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
8,779.08	0.00	0.00	8,645.00	823.87	300.61	14,526,850.38	2,092,876.29	39° 59' 27.438 N	109° 23' 4.776 W
TD at 877	9.08 - PBHL_	NBU 922-36J	11CS						



SDI Planning Report - Geographic



Database: Company: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 922-360 PAD

Wellbore:

ОН Design: PLAN #1 2-7-11 RHS Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Well NBU 922-36J1CS GL 4968 & KB 4

@ 4972.00ft (ASSUMED)

GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

Minimum Curvature

NBU 922-36J1CS **Survey Calculation Method:**

Design Targets

Target Name

- hit/miss target Dip Angle - Shape (°)

Dip Dir. TVD (°) (ft) 0.00 8,645.00

(ft) 823.87

+N/-S

(ft) 300.61

+E/-W

(usft) 14,526,850.38

Northing

(usft) 2,092,876.29

Lithology

Easting

Latitude 39° 59' 27.438 N

Longitude 109° 23' 4.776 W

PBHL_NBU 922-36J1C5 - plan hits target center

- Circle (radius 25.00)

Casing Points

Measured Vertical Depth Depth (ft) (ft)

0.00

2,331.38 2,249.00 8 5/8" Name

Casing Diameter (in)

8.625

Dip

(°)

Hole Diameter (in)

Dip

Direction

(°)

11.000

Formations

Measured Vertical Depth Depth (ft) (ft)

> 1,157.76 1,145.00 4,357.08

Name **GREEN RIVER**

4,223.00 WASATCH 6,576.08 6,442.00 MESAVERDE

Measu	red	Vertical	Local Coor	dinates	
Dept	h	Depth	+N/-S	+E/-W	
(ft)		(ft)	(ft)	(ft)	Comment
30	0.00	300.00	0.00	0.00	Start Build 2.00
1,30	0.00	1,279.82	162.30	59.22	Start 1553.89 hold at 1300.00 MD
2,85	3.89	2,739.99	661.56	241.39	Start Drop -2.00
3,85	3.89	3,719.81	823.87	300.61	Start 4925.19 hold at 3853.89 MD
8,77	9.08	8,645.00	823.87	300.61	TD at 8779.08

NBU 922-36J1CS

Surface: 1247' FSL 2113' FEL (SW/4SE/4) BHL: 2071' FSL 1809' FEL (NW/4SE/4)

NBU 922-36J4BS

Surface: 1254' FSL 2094' FEL (SW/4SE/4) BHL: 1740' FSL 1816' FEL (NW/4SE/4)

NBU 922-36J4CS

Surface: 1261' FSL 2075' FEL (SW/4SE/4) BHL: 1409' FSL 1816' FEL (NW/4SE/4)

NBU 922-36O1BS

Surface: 1257' FSL 2085' FEL (SW/4SE/4) BHL: 1078' FSL 1815' FEL (SW/4SE/4)

NBU 922-36O4BS

Surface: 1250' FSL 2103' FEL (SW/4SE/4) BHL: 415' FSL 1814' FEL (SW/4SE/4)

> Pad: NBU 922-360 Pad Section 36 T9S R22E Mineral Lease: ML-22650

Uintah County, Utah Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. <u>Existing Roads</u>:

Existing roads consist of county roads and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable

NBU 922-36J1CS / 36J4BS/ 36J4CS/ 36O1BS/ 36O4BS

Surface Use Plan of Operations Page 2

condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new access road is proposed. (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. <u>Location of Existing and Proposed Facilities</u>:

This pad will expand the existing pad for the NBU 922-36O. The NBU 922-36O well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of May 5, 2011.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM.

Gathering facilities:

NBU 922-36J1CS / 36J4BS/ 36J4CS/ 36O1BS/ 36O4BS

Surface Use Plan of Operations Page 3

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 2,230$ ' and the individual segments are broken up as follows:

- ±585' (0.11 miles) –New 6" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2.
- ± 780 ' (0.15 miles) –New 6" buried gas pipeline from the edge of pad to tie-in to the proposed 16" buried gas pipeline at the 36G intersection. Please refer to Topo D.
- ±865' (0.16 miles) –New 16" buried gas pipeline from the proposed 36G intersection to the proposed 36K intersection. Please refer to Topo D.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 2,340$ ' and the individual segments are broken up as follows:

- ±585' (0.11 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2.
- ±395' (0.07 miles) –New 6" buried liquid pipeline from the edge of pad to the East Jr. Compressor intersection. Please refer to Topo D2.
- ±385' (0.07 miles) –New 6" buried liquid pipeline from the East Jr. Compressor intersection to tie-in to the proposed 6" buried liquid pipeline at the 36G intersection. Please refer to Topo D.
- ±865' (0.16 miles) –New 6" buried liquid pipeline from the proposed 36G intersection to the proposed 36K intersection. Please refer to Topo D.
- ± 110 ' (0.02 miles) –New 6" buried liquid pipeline from the East Jr. Compressor to the road intersection. Please refer to Topo D2.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested

NBU 922-36J1CS / 36J4BS/ 36J4CS/ 36O1BS/ 36O4BS

Surface Use Plan of Operations Page 4

pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply</u>:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. <u>Source of Construction Materials</u>:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods of Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E

Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E

NBU 922-36J1CS / 36J4BS/ 36J4CS/ 36O1BS/ 36O4BS

Surface Use Plan of Operations Page 5

CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA)

NBU 922-36J1CS / 36J4BS/ 36J4CS/ 36O1BS/ 36O4BS

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subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit, access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

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Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. <u>Plans for Reclamation of the Surface</u>:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

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After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for revegetation. The site specific seed mix will be provided by SITLA.

J. <u>Surface/Mineral Ownership</u>:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

K. Other Information:

None

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M. <u>Lessee's or Operators' Representative & Certification:</u>

Gina T. Becker Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T. Becker

May 13, 2011

Date



JOE JOHNSON LANDMAN KERR-MCGEE ONSHORE OIL & GAS, L.P. 1099 18TH STREET, SUITE 1800 DENVER, CO 80202 720-929-6708 • FAX 720-929-7708 E-MAIL: JOE.JOHNSON@ANADARKO.COM

April 13, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 922-36J1CS

T9S-R22E

Section 36: SWSE/NWSE Surface: 1247' FSL, 2113' FEL Bottom Hole: 2071' FSL, 1809' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

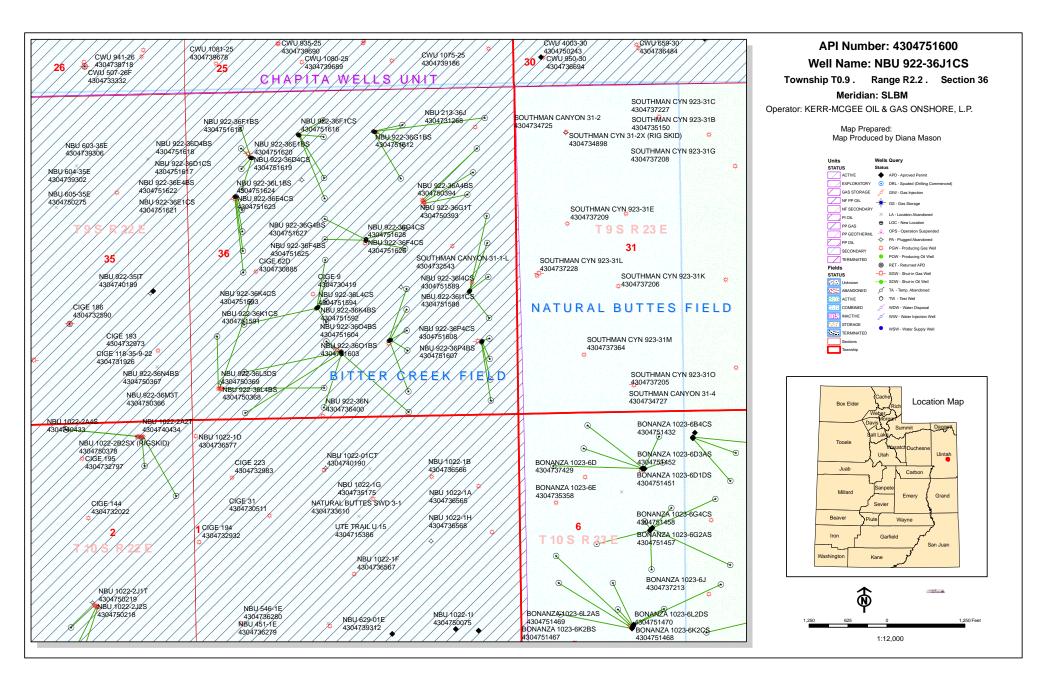
- Kerr-McGee's NBU 922-36J1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire
 directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

May 20, 2011

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2011 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2011 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 922-36I PAD

BHL Sec 36 T09S R22E 2071 FNL 0494 FEL 43-047-51587 NBU 922-36H4CS Sec 36 T09S R22E 2014 FSL 0792 FEL BHL Sec 36 T09S R22E 2508 FNL 0495 FEL 43-047-51588 NBU 922-36I1CS Sec 36 T09S R22E 2021 FSL 0785 FEL BHL Sec 36 T09S R22E 2237 FSL 0494 FEL 43-047-51589 NBU 922-36I4CS Sec 36 T09S R22E 1999 FSL 0805 FEL BHL Sec 36 T09S R22E 1574 FSL 0493 FEL **NBU 922-36K PAD** 43-047-51590 NBU 922-36K1BS Sec 36 T09S R22E 1798 FSL 1998 FWL BHL Sec 36 T09S R22E 2567 FSL 2148 FWL 43-047-51591 NBU 922-36K1CS Sec 36 T09S R22E 1809 FSL 2015 FWL BHL Sec 36 T09S R22E 2236 FSL 2147 FWL 43-047-51592 NBU 922-36K4BS Sec 36 T09S R22E 1815 FSL 2023 FWL BHL Sec 36 T09S R22E 1904 FSL 2147 FWL 43-047-51593 NBU 922-36K4CS Sec 36 T09S R22E 1804 FSL 2006 FWL BHL Sec 36 T09S R22E 1573 FSL 2146 FWL 43-047-51594 NBU 922-36L4CS Sec 36 T09S R22E 1793 FSL 1990 FWL BHL Sec 36 T09S R22E 1565 FSL 0821 FWL

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE

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NBU 922-36N PAD									
43-047-51595 NBU	922-36M1CS	Sec	36	T09S	R22E	1078	FSL	2379	FWL
					R22E				
43-047-51596 NBU	922-36M4CS	Sec	36	T09S	R22E	1068	FSL	2379	FWL
	BHL	Sec	36	T09S	R22E	0132	FSL	0819	FWL
43-047-51597 NBU	922-36N1BS	Sec	36	T09S	R22E	1088	FSL	2379	FWL
	BHL	Sec	36	T09S	R22E	1253	FSL	2140	FWL
43-047-51598 NBU	922-36N4CS	Sec	36	T09S	R22E	1048	FSL	2379	FWL
	BHL	Sec	36	T09S	R22E	0190	FSL	2081	FWL
43-047-51599 NBU									
	BHL	Sec	36	T09S	R22E	0085	FSL	1814	FEL
NBU 922-360 PAD		_	0.6			1015		0110	
43-047-51600 NBU									
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43-047-51601 NBU									
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43-047-31002 NBC					R22E				
	ППП	Sec	50	1000	11221	1400	ГОП	1010	гшп
43-047-51603 NBU	922-3601BS	Sec	36	T09S	R22E	1257	FSL	2085	FET.
10 017 01000 1120					R22E				
43-047-51604 NBU	922-3604BS	Sec	36	T09S	R22E	1250	FSL	2103	FEL
	BHL	Sec	36	T09S	R22E	0415	FSL	1814	FEL
NBU 922-36P PAD									
43-047-51605 NBU	922-36P1BS	Sec	36	T09S	R22E	1207	FSL	0606	FEL
	BHL	Sec	36	T09S	R22E	1243	FSL	0493	FEL
43-047-51606 NBU									
	BHL	Sec	36	T09S	R22E	0911	FSL	0493	FEL
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43-047-51607 NBU									
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43-047-51611 NBU	922-36B4BS	Sec	36	T09S	R22E	0682	FNL	2264	FEL
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BHL Sec 36 T09S R22E 0905 FNL 1828 FEL

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API # WELL NAME LOCATION (Proposed PZ WASATCH-MESA VERDE BHL Sec 36 T09S R22E 1439 FNL 1861 FEL **NBU 922-36C PAD** 43-047-51613 NBU 922-36C1CS Sec 36 T09S R22E 0700 FNL 1741 FWL BHL Sec 36 T09S R22E 0485 FNL 2152 FWL 43-047-51614 NBU 922-36C4BS Sec 36 T09S R22E 0706 FNL 1749 FWL BHL Sec 36 T09S R22E 0746 FNL 2153 FWL 43-047-51615 NBU 922-36F1BS Sec 36 T09S R22E 0718 FNL 1765 FWL BHL Sec 36 T09S R22E 1407 FNL 2151 FWL BHL Sec 36 T09S R22E 1738 FNL 2150 FWL **NBU 922-36D PAD** 43-047-51617 NBU 922-36D1CS Sec 36 T09S R22E 1062 FNL 0981 FWL BHL Sec 36 T09S R22E 0579 FNL 0825 FWL 43-047-51618 NBU 922-36D4BS Sec 36 T09S R22E 1060 FNL 0971 FWL BHL Sec 36 T09S R22E 0910 FNL 0825 FWL 43-047-51619 NBU 922-36D4CS Sec 36 T09S R22E 1064 FNL 0990 FWL BHL Sec 36 T09S R22E 1241 FNL 0825 FWL 43-047-51620 NBU 922-36E1BS Sec 36 T09S R22E 1067 FNL 1000 FWL BHL Sec 36 T09S R22E 1572 FNL 0825 FWL **NBU 922-36E PAD** BHL Sec 36 T09S R22E 1903 FNL 0824 FWL BHL Sec 36 T09S R22E 2245 FNL 0818 FWL BHL Sec 36 T09S R22E 2565 FNL 0824 FWL BHL Sec 36 T09S R22E 2401 FSL 0824 FWL **NBU 922-36G3 PAD** 43-047-51625 NBU 922-36F4BS Sec 36 T09S R22E 2414 FNL 2443 FEL BHL Sec 36 T09S R22E 2070 FNL 2149 FWL BHL Sec 36 T09S R22E 2401 FNL 2149 FWL 43-047-51627 NBU 922-36G4BS Sec 36 T09S R22E 2405 FNL 2441 FEL BHL Sec 36 T09S R22E 2235 FNL 1818 FEL 43-047-51628 NBU 922-36G4CS Sec 36 T09S R22E 2434 FNL 2447 FEL

RECEIVED: Jul. 26, 2011

BHL Sec 36 T09S R22E 2566 FNL 1818 FEL

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This office has no objection to permitting the wells at this time.

Digitally signed by Michael L. Coulthard Michael L. Coulthard

Management, ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2011.05.23 07:16:05-06'00'

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:5-20-11

From: Jim Davis

To: Bonner, Ed; Garrison, LaVonne; Hill, Brad; Mason, Diana

CC: Gina Becker; Lytle, Andy Date: 6/8/2011 3:00 PM

Subject: Kerr McGee APD approvals.

```
The following APDs have been approved by SITLA including arch and paleo clearance.
```

```
4304751586
             NBU 922-36H4BS
4304751587
             NBU 922-36H4CS
4304751588
             NBU 922-36I1CS
4304751589
             NBU 922-36I4CS
4304751590
             NBU 922-36K1BS
             NBU 922-36K1CS
4304751591
             NBU 922-36K4BS
4304751592
4304751593
             NBU 922-36K4CS
             NBU 922-36L4CS
4304751594
             NBU 922-36M1CS
4304751595
             NBU 922-36M4CS
4304751596
4304751597
             NBU 922-36N1BS
4304751598
             NBU 922-36N4CS
4304751599
             NBU 922-36O4CS
             NBU 922-36J1CS
4304751600
4304751601
             NBU 922-36J4BS
4304751602
             NBU 922-36J4CS
4304751603
             NBU 922-3601BS
4304751604
             NBU 922-36O4BS
4304751605
             NBU 922-36P1BS
4304751606
             NBU 922-36P1CS
4304751607
             NBU 922-36P4BS
             NBU 922-36P4CS
4304751608
4304751613
             NBU 922-36C1CS
             NBU 922-36C4BS
4304751614
4304751615
             NBU 922-36F1BS
4304751616
             NBU 922-36F1CS
4304751617
             NBU 922-36D1CS
4304751618
             NBU 922-36D4BS
4304751619
             NBU 922-36D4CS
4304751620
             NBU 922-36E1BS
4304751621
             NBU 922-36E1CS
4304751622
             NBU 922-36E4BS
4304751623
             NBU 922-36E4CS
4304751624
             NBU 922-36L1BS
4304751625
             NBU 922-36F4BS
4304751626
             NBU 922-36F4CS
4304751627
             NBU 922-36G4BS
4304751628
             NBU 922-36G4CS
```

Full paleo monitoring is a required condition for the approval of these APDs- as recommended in the paleo report.

4304751609 NBU 922-36A1CS 4304751610 NBU 922-36B1CS 4304751611 NBU 922-36B4BS 4304751612 NBU 922-36G1BS

Thanks.

-Jim

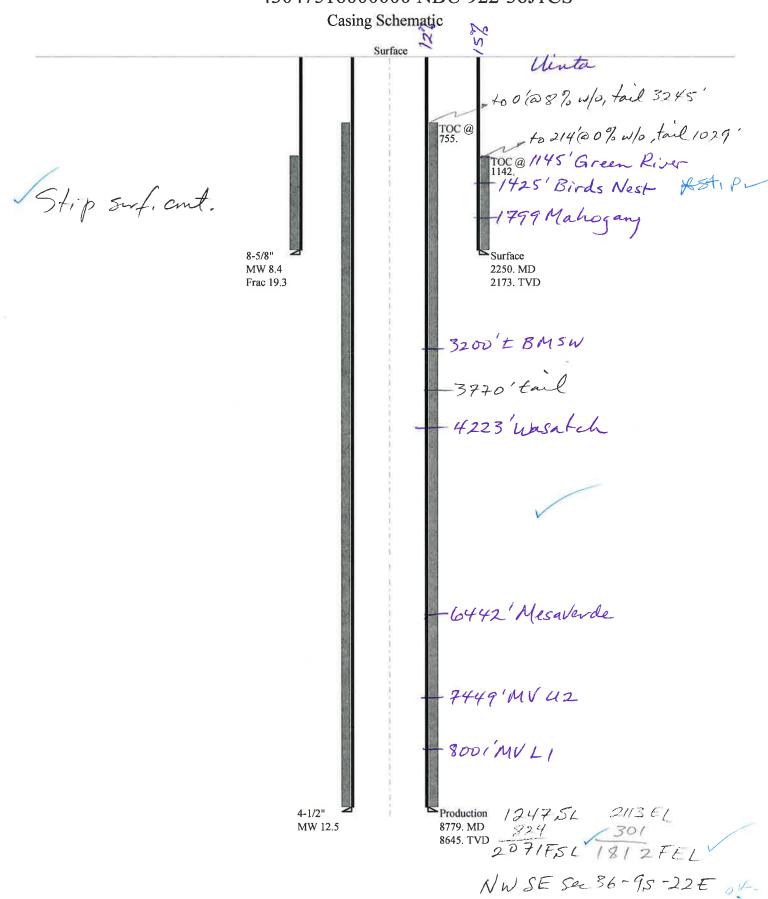
Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov Phone: (801) 538-5156

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-36J1CS 43047516000000

Well Name		KERR-MCGE	ΕC	OIL & GAS ONS	SHOR	E, L.P. NB	U 922-36J	1CS	
String		Surf	Ī	Prod				=	
Casing Size(")		8.625	Ī	4.500				=	
Setting Depth (TVD)		2173	Ï	8645				=	
Previous Shoe Setting Dept	th (TVD)	40	Ī	2173				Ħ	
Max Mud Weight (ppg)		8.4	ľ	12.5		=		=	
BOPE Proposed (psi)		500	Ī	5000		=		=	
Casing Internal Yield (psi)		3390	Ī	7780				Ħ	
Operators Max Anticipate	d Pressure (psi)	5533	H	12.3					
Calculations	Sur	f String				8.625			1
Max BHP (psi)	Suii		ng	Depth*MW		49	i		
(F)				, - · P - · · · · · · · ·	113	+9	BOPE	Ade	equate For Drilling And Setting Casing at Dep
MASP (Gas) (psi)	Max	x BHP-(0.12*	'Se	etting Depth)	= 6	38	NO		air drill
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	Se	etting Depth)	-1'-		YES		ОК
, ,		<u> </u>			+-		1	⁷ ull	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previou	us	Shoe Depth)	= 4	30	NO		Reasonable
Required Casing/BOPE Te	est Pressure=				2	173	psi		
*Max Pressure Allowed @	Previous Casing Shoe=				4)	psi *	Ass	umes 1psi/ft frac gradient
							-		
Calculations	Prod	d String			+	4.500	"		
Max BHP (psi)		.052*Settii	ng	Depth*MW	= 5	619	DODE		
MASD (Cos) (noi)	May	DIID (0.12*)	·C ·	atting Danth)	+			Ade	equate For Drilling And Setting Casing at Dep
MASP (Gas) (psi)		BHP-(0.12*)			- -	582	YES		
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	Se	etting Depth)	= 3	717	YES	711	OK
Pressure At Previous Shoe	Max RHP- 22*(Setting D	enth - Previou	115	Shoe Denth)		105		'ull	Expected Pressure Be Held At Previous Shoe?
Required Casing/BOPE To		epin Tieviou	4.5	Shoe Bepui)	+	195	NO psi		Reasonable
*Max Pressure Allowed @			_		╁	000	1	Δςς	umes 1psi/ft frac gradient
Max 1 ressure milowed w	Trevious Casing Shoc				12	173	PSI	1133	annes Tpshit nue gradient
Calculations	S	tring					"		
Max BHP (psi)		.052*Settii	ng	Depth*MW	= [_		j		
							ВОРЕ	Ade	equate For Drilling And Setting Casing at Dep
MASP (Gas) (psi)		x BHP-(0.12*	_		_ !-		NO		
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	'Se	etting Depth)	<u> </u>		NO		
D 1/D 1 27	M. DVID COMO	4 5 :	_	ol P 31	+		*Can l	₹ull	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe		epth - Previou	us	Shoe Depth)	1-		NO .		<u> </u>
Required Casing/BOPE Te					-		psi		
*Max Pressure Allowed @	Previous Casing Shoe=				_		psi *	Ass	umes 1psi/ft frac gradient
Calculations	S	tring					"		
Max BHP (psi)		.052*Settii	ng	Depth*MW	- [
MACD (C. V. S		DIID (0.12)	·C	W B 31	-			Ade	equate For Drilling And Setting Casing at Dep
MASP (Gas) (psi)		x BHP-(0.12*)			-1-		NO		
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	Se	etting Depth)	= [_		NO		
Duogguno A4 Daras CI	May DIID 22*/C #: P	anth D-		Chas D. 41	-			full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe		epui - Previou	uS	snoe Deptn)	#		NO NO		
Required Casing/BOPE Te	st Pressure=						psi		

*Max Pressure Allowed @ Previous Casing Shoe= psi *Assumes 1psi/ft frac gradient

43047516000000 NBU 922-36J1CS



Well name:

43047516000000 NBU 922-36J1CS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Surface

Project ID: 43-047-51600

Location:

UINTAH

COUNTY

Design parameters: Collapse

Mud weight:

8.400 ppg Design is based on evacuated pipe.

Collapse:

Burst:

Design factor

Design factor

Minimum design factors:

1.125

1.00

1.80 (J)

H2S considered?

Bottom hole temperature:

Temperature gradient: Minimum section length:

Cement top:

Burst Max anticipated surface

> pressure: Internal gradient:

Calculated BHP

1,980 psi

2,241 psi

No backup mud specified.

0.120 psi/ft

Body yield:

Tension: 8 Round STC: 8 Round LTC:

1.70 (J) 1.60 (J) Buttress: 1.50 (J) Premium: 1.50 (B)

Tension is based on air weight. Neutral point: 1,964 ft **Environment:**

Surface temperature:

No 74 °F 104 °F 1.40 °F/100ft

100 ft

1,142 ft

Directional Info - Build & Drop

300 ft Kick-off point Departure at shoe: 498 ft Maximum dogleg: 2 °/100ft

Inclination at shoe: 20° Re subsequent strings:

Next setting depth: 8,779 ft Next mud weight: 12.500 ppg Next setting BHP: 5,701 psi Fracture mud wt: 19.250 ppg Fracture depth: 2,250 ft

Injection pressure: 2,250 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.	
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost	
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)	
1	2250	8.625	28.00	I-55	LT&C	2173	2250	7.892	89100	
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension	
Run Seq	Collapse Load	Collapse Strength	Collapse Design	Burst Load	Burst Strength	Burst Design	Tension Load	Tension Strength	Tension Design	
		•	•							

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: July 19,2011 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2173 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name;

43047516000000 NBU 922-36J1CS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Production

Project ID: 43-047-51600

Location:

UINTAH

COUNTY

Environment:

Design parameters: Collapse

Mud weight:

12.500 ppg

Collapse:

1.125 Design factor

Minimum design factors:

H2S considered? Surface temperature: No 74 °F

Design is based on evacuated pipe.

Bottom hole temperature: Temperature gradient:

195 °F 1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

1.80 (J)

1.80 (J)

Cement top:

755 ft

Burst

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

3,712 psi 0.220 psi/ft

5.614 psi

Tension:

8 Round STC: 8 Round LTC:

Buttress: Premium: Body yield:

1.60 (J) 1.50 (J) 1.60 (B) Directional Info - Build & Drop

Kick-off point 300 ft Departure at shoe: 877 ft Maximum dogleg: 2 °/100ft

Inclination at shoe:

0 °

Tension is based on air weight. Neutral point: 7,164 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	8779	4.5	11.60	I-80	LT&C	8645	8779	3.875	115883
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5614	6360	1.133	5614	7780	1.39	100.3	212	2.11 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: July 19,2011 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8645 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name NBU 922-36J1CS

API Number 43047516000000 APD No 3817 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 SWSE **Sec** 36 **Tw** 9.0S **Rng** 22.0E 1247 FSL 2113 FEL

GPS Coord (UTM) 637828 4427543 Surface Owner

Participants

Floyd Bartlett (DOGM), Sheila Wopsock, Lovell Young, Gina Becker, Mark Koehn, Griz Oleen (Kerr McGee), Ben Williams (UDWR) and Mitch Batty, John Slaugh (Timberline Engineering and Land Surveying).

Regional/Local Setting & Topography

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¾ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42 air miles to the northwest. Access from Vernal is approximately 45.6 road miles following Utah State, Uintah County and oilfield development roads to the location.

Five additional gas wells will be added to and directionally drilled from the NBU 922-36O pad. They are the NBU 922-36J4CS, NBU 922-36O1BS, NBU 922-36J4BS, NBU 922-36O4BS and NBU 922-36J1CS. The pad contains the existing MBU 922-36O gas well. The site is within a moderately wide cove surrounded by steep, ledgy hills on all sides except to the east. The existing pad will be reoriented and significantly enlarged in all directions. A diversion is needed on the west to continue north around the stockpile to catch the short drainage from the west. On the east, catch the drainage from the south and divert it to the east and north around the pad cutting thru the topsoil pile or relocate this pile. This area may have to be reinforced with rock. A cut of 18.8 feet occurs at Corner 6. Maximum fill is 9.2 feet at Location Corner 2. Where the pad is cut into steep side slope behind the pit, the cut slope may be left at about ½:1 to reduce the amount of cutting and disturbance. Reserve pit corner A is in 3.1 feet of fill. With the proposed 15 foot outer bench, 2 feet of freeboard, a 30-mil liner and the spoils placed along this side, it should be stable. The existing pad shows no stability problems. Although significant excavation is required for enlarging the pad, no stability concerns exist. The selected site is the only suitable location in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 352 Length 465 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

7/26/2011 Page 1

Affected Floodplains and/or Wetlands N

Flora / Fauna

Area beyond the existing pad is poorly vegetated with blue bunch wheatgrass, Indian ricegrass. greasewood, cheatgrass, black sagebrush, broom snakeweed, globemallow, Sitanion hystrix, shadscale, rabbitbrush, loco weed, pepper weed, halogeton and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

Soil Type and Characteristics

Soils are shallow and rocky. Soils are shallow and rocky.

Erosion Issues Y

Sedimentation Issues Y

Site Stability Issues N

Drainage Diverson Required? Y

A diversion is needed on the west to continue north around the stockpile to catch the short drainage from the west. On the east, catch the drainage from the south and divert it to the east and north around the pad.

Berm Required? N

Erosion Sedimentation Control Required? Y

A diversion is needed on the west to continue north around the stockpile to catch the short drainage from the west. On the east, catch the drainage from the south and divert it to the east and north around the pad.

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ra	anking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned mostly in an area of cut in the southeast side of the location. Dimensions are 100' x 260' x 12' deep with 2' of freeboard. Corner A is within 3.4 feet of fill. With the proposed 15 foot outer bench, 2 feet of freeboard, a 30-mil liner and the spoils placed along this side, it should be stable.

7/26/2011 Page 2

Closed Loop Mud Required? N Liner Required? Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Floyd Bartlett **Evaluator**

5/24/2011 **Date / Time**

7/26/2011 Page 3

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	St	atus W	ell Type	Surf Owner	r CBM
3817	43047516000000	SI	TLA G	W	S	No
Operator	KERR-MCGEE O	IL & GAS ONSHO	RE, L.P. Su	ırface Owner-APD		
Well Name	NBU 922-36J1CS		U	nit	NATURAL	BUTTES
Field	NATURAL BUTT	TES	T	ype of Work	DRILL	
Location	SWSE 36 9S	22E S 1247 FSI	L 2113 FEL	GPS Coord (UTM)	637813E 4	427541N

Geologic Statement of Basis

7/26/2011

Kerr McGee proposes to set 2,250' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,200'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The production casing cement should be brought up above the base of the moderately saline ground water in order to isolate it from fresher waters up hole. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill 6/21/2011 **APD Evaluator Date / Time**

Surface Statement of Basis

The general area is in the southeast portion of the Natural Buttes Unit, which contains the White River and rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¾ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 42 air miles to the northwest. Access from Vernal is approximately 45.6 road miles following Utah State, Uintah County and oilfield development roads to the location.

Five additional gas wells will be added to and directionally drilled from the NBU 922-36O pad. They are the NBU 922-36J4CS, NBU 922-36O1BS, NBU 922-36J4BS, NBU 922-36O4BS and NBU 922-36J1CS. The pad contains the existing MBU 922-36O gas well. The site is within a moderately wide cove surrounded by steep, ledgy hills on all sides except to the east. The existing pad will be reoriented and significantly enlarged in all directions. A diversion is needed on the west to continue north around the stockpile to catch the short drainage from the west. On the east, catch the drainage from the south and divert it to the east and north around the pad cutting thru the topsoil pile or relocate this pile. This area may have to be reinforced with rock. A cut of 18.8 feet occurs at Corner 6. Maximum fill is 9.2 feet at Location Corner 2. Where the pad is cut into steep side slope behind the pit, the cut slope may be left at about ½:1 to reduce the amount of cutting and disturbance. Reserve pit corner A is in 3.1 feet of fill. With the proposed 15 foot outer bench, 2 feet of freeboard, a 30-mil liner and the spoils placed along this side, it should be stable. The existing pad shows no stability problems. Although significant excavation is required for enlarging the pad, no stability concerns exist. The selected site is the only suitable location in the immediate area.

Both the surface and minerals are owned by SITLA. Ed Bonner and Jim Davis of SITLA were invited to attend the pre-site evaluation. Neither attended. SITLA is to be contacted for reclamation standards including a seed mix to be used.

Ben Williams of the Utah Division of Wildlife Resources attended the pre-site. Mr. Williams stated no wildlife

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 2

values would be significantly affected by drilling and operating the additional wells at this location.

Floyd Bartlett 5/24/2011
Onsite Evaluator Date / Time

Conditions of Approval / Application for Permit to Drill

Category Condition

7/26/2011

Pits A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and

maintained in the reserve pit.

Surface Drainages adjacent to the proposed pad shall be diverted around the location. A diversion is needed on the west to

continue north around the stockpile to catch the short drainage from the west. On the east, catch the drainage from the south and divert it to the east and north around the pad cutting thru the topsoil pile or relocate this pile. This area may have

to be reinforced with rock.

Surface The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/14/2011 **API NO. ASSIGNED:** 43047516000000

WELL NAME: NBU 922-36J1CS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) **PHONE NUMBER:** 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: SWSE 36 090S 220E **Permit Tech Review:**

> SURFACE: 1247 FSL 2113 FEL **Engineering Review:**

> **BOTTOM:** 2071 FSL 1809 FEL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.98871 LONGITUDE: -109.38585

UTM SURF EASTINGS: 637813.00 NORTHINGS: 4427541.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML-22650 PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State COALBED METHANE: NO

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

 PLAT R649-2-3.

Unit: NATURAL BUTTES **Bond:** STATE/FEE - 22013542

Potash R649-3-2. General

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-14 Water Permit: Permit #43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting **Fee Surface Agreement**

✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

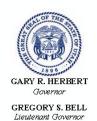
Oil Shale 190-5

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald

API Well No: 43047516000000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 922-36J1CS **API Well Number:** 43047516000000

Lease Number: ML-22650 **Surface Owner:** STATE **Approval Date:** 7/26/2011

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

API Well No: 43047516000000

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 18852 API Well Number: 43047516000000

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650		
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for proposition bottom-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deepen ex ugged wells, or to drill horizontal laterals. Use	isting wells below current APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047516000000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE Street, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL	COUNTY: UINTAH				
QTR/QTR, SECTION, TOWNSHI	IP, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME		
10/3/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE		
SUBSEQUENT REPORT	☐ DEEPEN ☐	FRACTURE TREAT	☐ NEW CONSTRUCTION		
Date of Work Completion:	☐ OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK		
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION ☐	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL		
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
Report Date:	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Pit Refurb/ ACTS		
	DMPLETED OPERATIONS. Clearly show all pertin				
	as Onshore, LP is requesting to				
	r completion operations. The ref the COA of the APD. Upon comp				
	Iso requesting to utilize this pit		Utah Division of		
be utilized for other	completion operations in the are	ea. The trucks will unload			
	nks before the water is placed in		10/05/2011		
	anks is to collect any hydro-cart other completion operations befo		are:		
	pit open for 1 year. During this				
	on fluids will be recycled in this p	oit and utilized for other f			
	sections	. Thank you.			
		I			
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst			
SIGNATURE		DATE 9/26/2011			

Sundry Number: 18852 API Well Number: 43047516000000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047516000000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

Print Form

BLM - Vernal Field Office - Notification Form

Oper	rator <u>KERR-McGEE OIL & GA</u>	<u>S</u> Rig Name/# 5	<u> 3UCr</u>	KET RIG
Subr	nitted By ANDY LYTLE	Phone Number	720.	929.6100
	Name/Number NBU 922-36J			
	Qtr <u>SWSE</u> Section 36		R	ange 22E
•	se Serial Number ML 22650	•		
	Number 4304751600			
	· · · · · · · · · · · · · · · · · · ·			
Spuc	<u>d Notice</u> – Spud is the initial	spudding of the	wel	ll, not drilling
out l	below a casing string.			
	Date/Time <u>10/05/2011</u>	08:30 HRS AM		РМ
<u>Casi</u> time	ng – Please report time casi s.	ing run starts, no	ot ce	ementing
7	Surface Casing			RECEIVED
Ħ	Intermediate Casing			
	Production Casing			OCT 0 4 2011
П	Liner		DIV.	OF OIL, GAS & MINING
	Other			
	Date/Time 10/18/2011	08:00 HRS AM		РМ
	•			<u>—</u>
BOP	<u>E</u>			
	Initial BOPE test at surface	casing point		
	BOPE test at intermediate	casing point		
	30 day BOPE test			
	Other			
	Data/Timo	4 N4		РМ 🗌
	Date/Time	AIVI		רויו []
Rem	narks estimated date and time. Plea	SE CONTACT KENNY GATH	INGS A	AT
435.82	28.0986 OR LOVEL YOUNG AT 435.781.70	51		

Sundry Number: 19288 API Well Number: 43047516000000

	STATE OF LITAL		FORM 9
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
SUNDE	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen e		
	igged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSI	HORE, L.P.		9. API NUMBER: 43047516000000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th St	PHONI treet, Suite 600, Denver, CO, 80217 3779	E NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI	P, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	_ ACIDIZE	ALTER CASING	☐ CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud: 10/6/2011	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU PETE MARTIN	MPLETED OPERATIONS. Clearly show all perti BUCKET RIG. DRILLED 20" CC UDLE 10 PIPE. CMT W/28 SX R 10/06/2011 AT 1530 HRS	ONDUCTOR HOLE TO 40'. EADY MIX. SPUD WELL O Oil	
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 10/7/2011	

SUBMIT AS EMAIL Print Form

BLM - Vernal Field Office - Notification Form

Oper	rator KERR-McGEE OIL & GA	S Rig Name/	# BUCK	KET RIG
Subr	nitted By ANDY LYTLE	Phone Numb	per 720.9	929.6100
	Name/Number NBU 922-36J			
	Qtr <u>swse</u> Section <u>36</u>		Ra	ange 22E
_	e Serial Number ML 22650			<u> </u>
	Number <u>4304751600</u>			
	<u>l Notice</u> – Spud is the initial pelow a casing string.	spudding of	the wel	l, not drilling
	Date/Time <u>10/05/2011</u>	08:30 HRS A	M 🗌	РМ
<u>Casi</u>	<u>ng</u> – Please report time casi s.	ng run starts,	, not ce	menting
	Surface Casing			RECEIVED
	Intermediate Casing			OCT 0 4 2011
	Production Casing			
	Liner		D	IV. OF OIL, GAS & MINING
	Other			
	Date/Time <u>10/18/2011</u>	08:00 HRS A	M 🗌	РМ
BOP	E Initial BOPE test at surface BOPE test at intermediate 30 day BOPE test Other	.		
	Date/Time	A	M _	РМ
Rem	arks estimated date and time. Plea	SE CONTACT KENNY (GATHINGS A	T
435.82	8 0986 OR LOVEL YOUNG AT 435 781 705	51		

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

	ENTITY ACTION FORM							
Operator:	KERR McGEE OIL &	GAS ONSHORE LP	Operator Account Number: N 2995					
Address:	1368 SOUTH 1200 E	AST						
	city VERNAL							
	state UT	_{zip} 84078	Phone Number: (435) 781-7024					

Well 1

API Number	Well	Well Name		Sec Twp		Rng	County
4304751604	NBU 922-3604BS	U 922-36O4BS		36	98	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	S	Spud Date		Entity Assignment Effective Date	
B	99999	2900	1	10/6/2011		10	114/11
	J PETE MARTIN BUCKI D WELL ON 10/06/2011		MVD	しょる	SES	E	

Well 2

API Number	Well I	Vame	QQ	Sec	Twp	Rng	County
4304751600	NBU 922-36J1CS		SWSE	36	98	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	S	pud Da	te		ity Assignment Effective Date
B	99999	2900	1	0/6/201	1	10	0/14/11
Comments: MIRU SPU	J PETE MARTIN BUCKE D WELL ON 10/06/2011	ET RIG. WS7 AT 1530 HRS.	NVD BH	L= N	VWS	E	

Well 3

API Number	Well f	lame	QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	S	l Spud Da	te		y Assignment fective Date
comments:				No. Office Continues			

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

10/7/2011

Date

RECEIVED

OCT 1 1 2011

(5/2000)

Sundry Number: 19879 API Well Number: 43047516000000

	STATE OF UTAH		FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650	
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-36J1CS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.			9. API NUMBER: 43047516000000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 720 929-6515 Ext			9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 22.0E Meridian: S			COUNTY: UINTAH	
			STATE: UTAH	
11. CHE	CK APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
MIRU AIR RIG ON C SURFACE CASING	□ ACIDIZE □ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION OMPLETED OPERATIONS. Clearly show all per OCT. 28, 2011. DRILLED SURF AND CEMENTED. WELL IS WAS ENT JOB WILL BE INCLUDED WILL BE	ACE HOLE TO 2442'. RAN AITING ON ROTARY RIG. VITH WELL COMPLETION A U		
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE		
Jaime Scharnowske	720 929-6304	Regulartory Analyst		
SIGNATURE N/A		DATE 10/31/2011		

Sundry Number: 19539 API Well Number: 43047516000000

	FORM 9			
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650	
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.			9. API NUMBER: 43047516000000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 PHONE NUMBER: 720 929-6515 Ext			9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL			COUNTY: UINTAH	
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 36 Township: 09.0S Range: 22.0E Meridian: S			STATE: UTAH	
11. CHE	CK APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPORT	, OR OTHER DATA	
TYPE OF SUBMISSION	TYPE OF ACTION			
The operator reque DQX/LTC, the drillin	□ ACIDIZE ✓ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION DIMPLETED OPERATIONS. Clearly show all pertine ests changes to the production of g program to allow for the use of variance for FIT Requirements. I explanation. Thank you.	ent details including dates, depths, asing program to Ultra of a Closed Loop system Please see attached	·	
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE		
Jaime Scharnowske SIGNATURE	720 929-6304	Regulartory Analyst DATE		
N/A		10/17/2011		

Sundry Number: 19539 API Well Number: 43047516000000

NBU 922-36J1CS Drilling Program
1 of 7

Kerr-McGee Oil & Gas Onshore, L.P.

NBU 922-36J1CS

 Surface:
 1247 FSL / 2113 FEL
 SWSE

 BHL:
 2071 FSL / 1809 FEL
 NWSE

Section 36 T9S R22E

Uintah County, Utah Mineral Lease: ML-22650

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,145'	
Birds Nest	1,425'	Water
Mahogany	1,799'	Water
Wasatch	4,223'	Gas
Mesaverde	6,442'	Gas
MVU2	7,449'	Gas
MVL1	8,001'	Gas
TVD	8,644'	
TD	8.779'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

Sundry Number: 19539 API Well Number: 43047516000000

NBU 922-36J1CS Drilling Program

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 8644' TVD, approximately equals 5,532 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,618 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 922-36J1CS Drilling Program 3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 922-36J1CS Drilling Program 4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

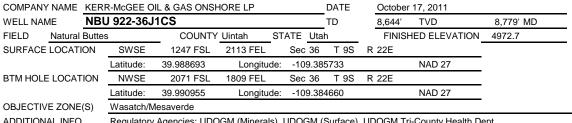
Drilling Program

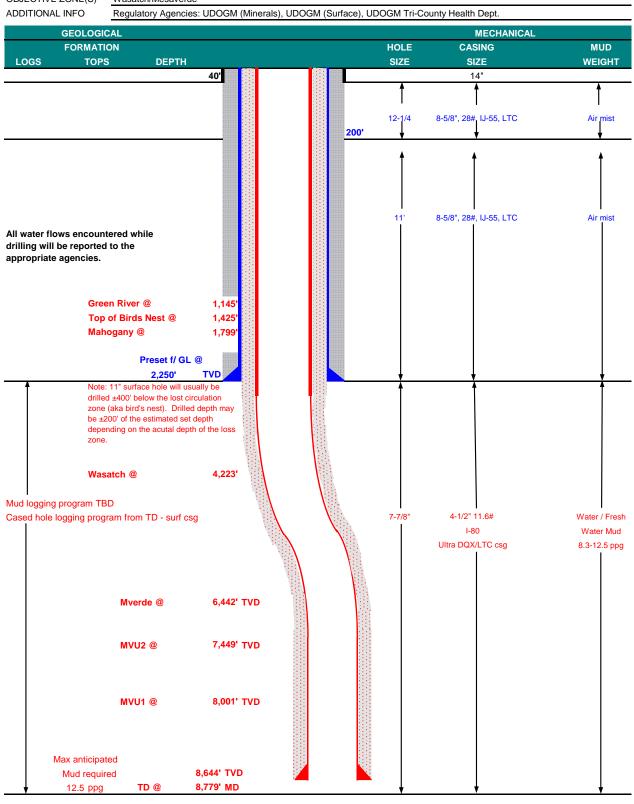
5 of 7



NBU 922-36J1CS

KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM





Drilling Program

6 of 7

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM	<u>/</u>	DESIGN FACTORS									
_				LTC	DQX						
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLL	APSE	TENSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,250	28.00	IJ-55	LTC	2.40	1.79	6.31	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.13		3.24
	4-1/2"	5,000	to	8,779'	11.60	I-80	LTC	1.11	1.13	6.29	

Surface Casing:

NBU 922-36J1CS

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water	to surface,	option 2 w	ill be utilized	
Option 2 LEAD	1,750'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	3,719'	Premium Lite II +0.25 pps	280	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,060'	50/50 Poz/G + 10% salt + 2% gel	1,200	35%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

PRODUCTION Float shoe, 1 jt, float collar. No centralizers will be used.	

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

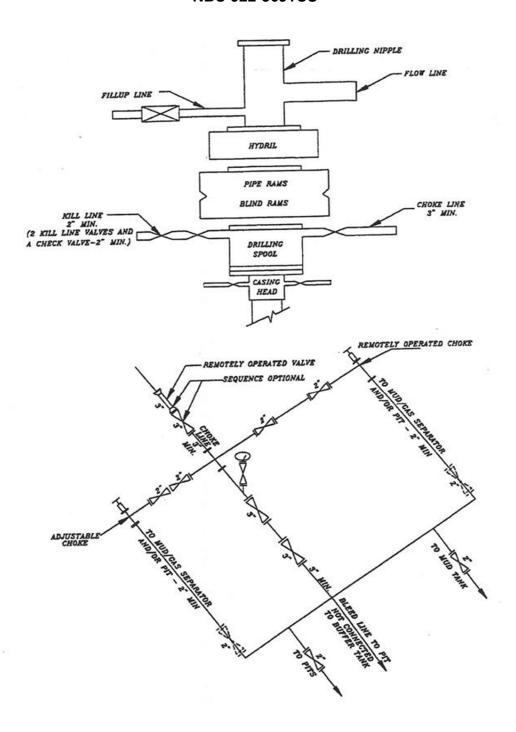
wost rigs have PVT System	for mud monitoring. If no PVT is available, visual monitoring w	iii de utilizea.	
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel		
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

Drilling Program 7 of 7

NBU 922-36J1CS

EXHIBIT A NBU 922-36J1CS



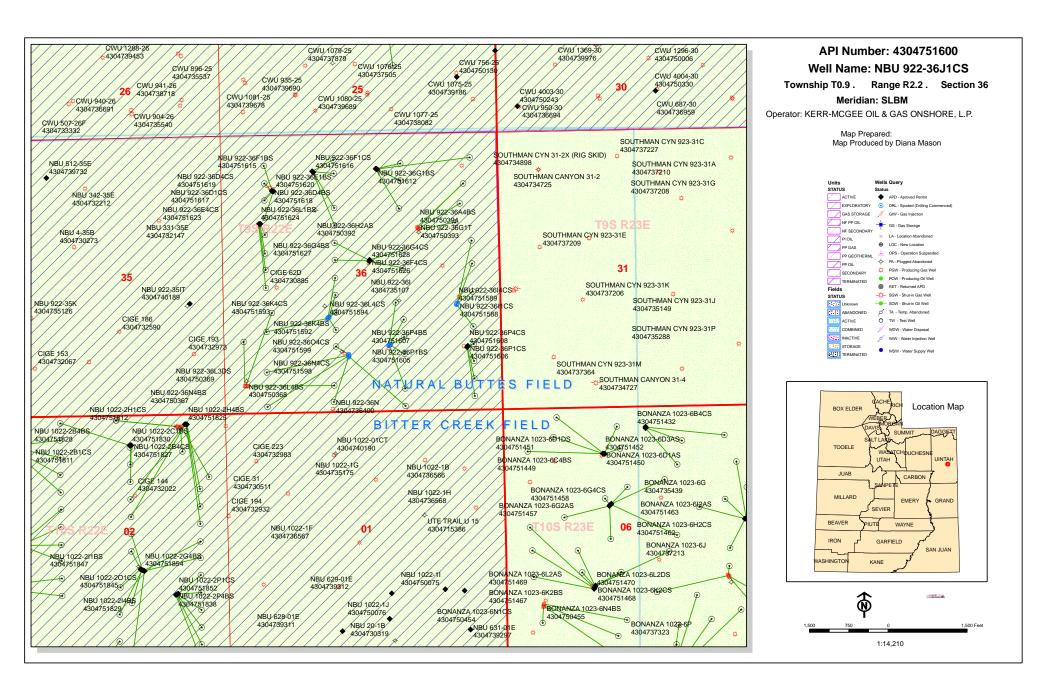
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

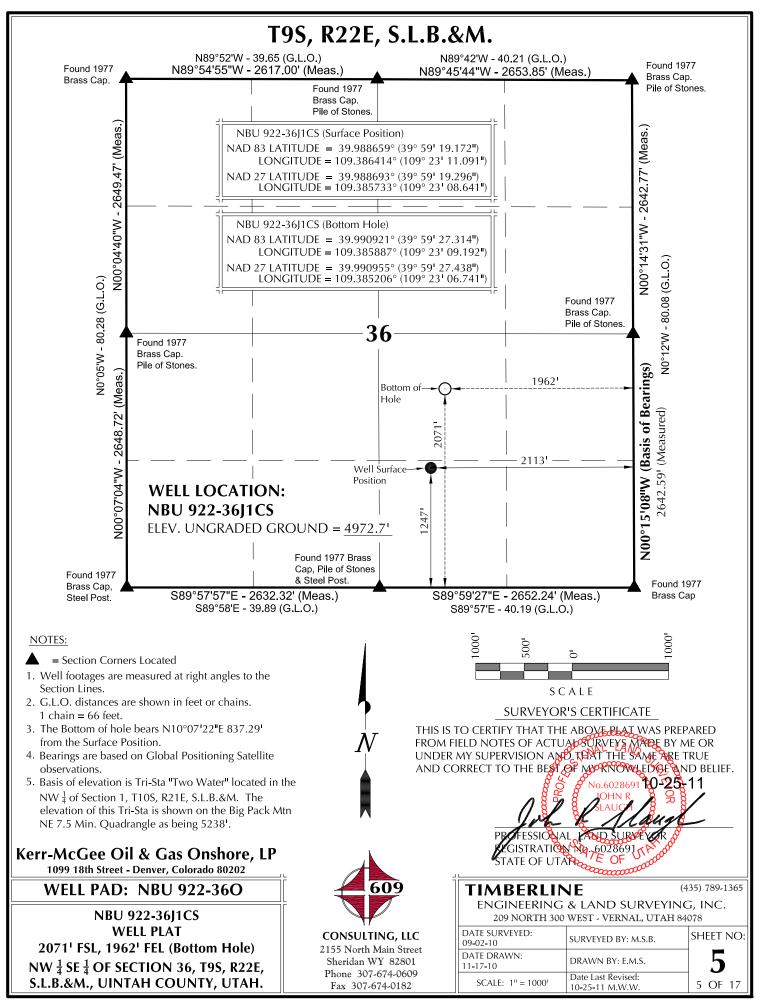
Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deeper gged wells, or to drill horizontal laterals. I		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047516000000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHC treet, Suite 600, Denver, CO, 80217 3779	ONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWSE Section: 36	P, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian:	S	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
10/17/2011	CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
12 DESCRIBE PROPOSED OF CO	MPLETED OPERATIONS. Clearly show all pe	rtinent details including dates, denths, v	volumes etc
The operator would possible collision issu location will be 20	d like to change the bottom he. A new directional survey is 071 FSL and 1962 FEL. With to MD should be 8782 and TVD	ole footage calls due to a attached. New bottom hol he adjustment, the new	
			ate: 11/10/2011 y:
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 10/17/2011	







JOE JOHNSON LANDMAN KERR-MCGEE ONSHORE OIL & GAS, L.P.
1099 18TH STREET, SUITE 1800
DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

October 27, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 922-36J1CS

T9S-R22E

Section 36: SWSE/NWSE Surface: 1247' FSL, 2113' FEL Bottom Hole: 2071' FSL, 1962' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-36J1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman

Site: NBU 922-360 PAD Well: NBU 922-36J1CS

Wellbore: OH

Scientific Drilling

Design: PLAN #2 SURFACE



Rocky Mountain Operations WELL DETAILS: NBU 922-36J1CS GL 4968 & KB 4 @ 4972.00ft (ASSUMED) +N/-S +E/-W **Easting** Northing Latittude Longitude 0.00 0.00 14526021.20 2092590.65 39° 59' 19.295 N 109° 23' 8.639 W **DESIGN TARGET DETAILS** Name DTGT TVD +N/-S +E/-W **Northing** Easting Latitude Longitude Shape 3771.00 848.87 135.61 14526872.38 2092710.86 39° 59' 27.685 N 109° 23' 6.896 W Circle (Radius: 15 - plan hits target center TOC 138.74 14526867.22 2092714.08 39° 59' 27.634 N 109° 23' 6.856 W Point 4836.00 843.65 plan hits target center **PBHL** 8657.00 823.87 150.61 14526847.65 2092726.31 39° 59' 27.438 N 109° 23' 6.704 WCircle (Radius: 25.0 - plan hits target center CASING DETAILS FORMATION TOP DETAILS **TVD** MD Name Size **TVDPath MDPath** Formation 2361.00 8 5/8" 2442.11 8.625 1162.00 1175.57 **GREEN RIVER** 0.00 4236.00 4361.41 **WASATCH** 0.00 6453.00 6578.45 **MESAVERDE** 0.00 **SECTION DETAILS VSect** MD Inc Azi TVD +N/-S +E/-W Dleg **TFace** 0.00 0.00 0.00 0.00 0.00 0.00 0.000.00 0.00 300.00 300.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 9.08 1224.59 1241.44 9.08 18.83 151.38 24.18 2.00 153.27 2954.96 18.83 9.08 2846.41 697.49 111.43 0.00 0.00 706.15 3896.40 0.00 0.00 3771.00 848.87 135.61 2.00 180.00 859.42 DTGT_NBU 922-36J1CS 0.35 149.04 3886.34 135.79 0.30 149.04 859.16 4011.74 848.57 0.35 149.04 8657.00 8782.49 823.87 150.61 0.00 0.00 837.52 PBHL_NBU 922-36J1CS PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US

Ellipsoid: Clarke 1866

Zone: Zone 12N (114 W to 108 W) Location: SECTION 36 T9S R22E System Datum: Mean Sea Level

Sundry Numb**project? Whitah County, lunymmez:** 43047516000000

Scientific Drilling
Rocky Mountain Operations

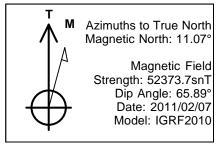
Site: NBU 922-360 PAD Well: NBU 922-36J1CS

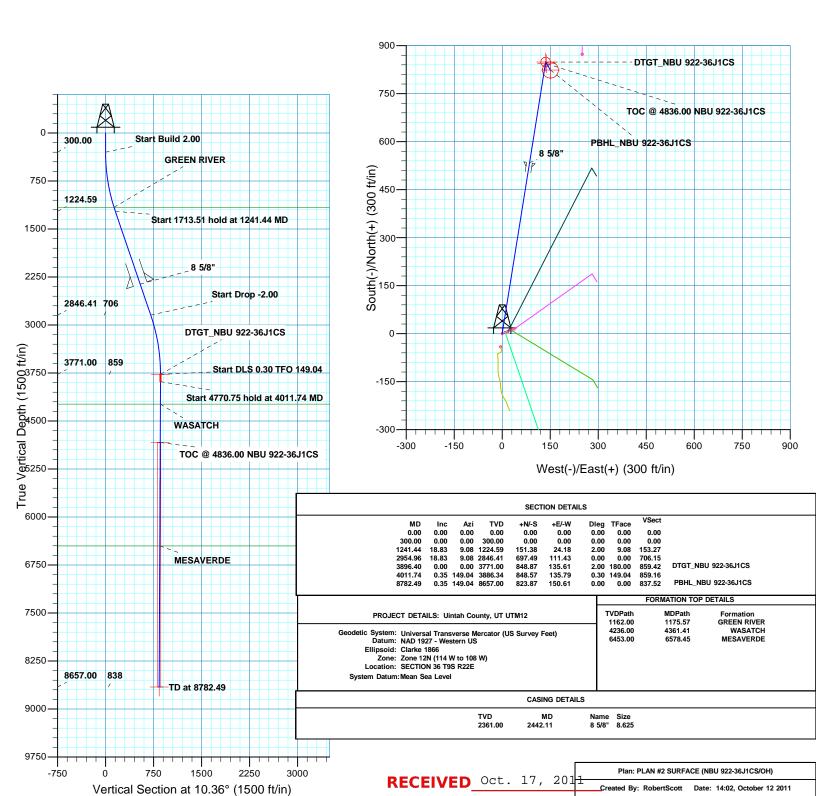
Wellbore: OH

Design: PLAN #2 SURFACE



WELL DETAILS: NBU 922-36J1CS GL 4968 & KB 4 @ 4972.00ft (ASSUMED) Easting 2092590.65 Longitude 109° 23' 8.639 W 0.00 14526021.20 39° 59' 19.295 N DESIGN TARGET DETAILS Easting TVD 3771.00 +N/-S 848.87 +E/-W 135.61 Northing 14526872.38 Longitude 23' 6.896 W Shape Circle (Radius: 15.00) Latitude DTGT 2092710.86 center тос 138.74 14526867.22 2092714.08 59' 27.634 N PBHL 8657.00 823.87 150.61 14526847.65 2092726.31 39° 59' 27.438 N 109° 23' 6.704 W Circle (Radius: 25.00) plan hits target center







Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

ОН

Plan: PLAN #2 SURFACE

Standard Planning Report

12 October, 2011





SDIPlanning Report



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 922-360 PAD

Well: NBU 922-36J1CS

Wellbore: OH

Geo Datum:

Map Zone:

Design: PLAN #2 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

Minimum Curvature

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Zone 12N (114 W to 108 W) System Datum:

Mean Sea Level

Site NBU 922-360 PAD, SECTION 36 T9S R22E

Northing: 14,526,021.20 usft Site Position: Latitude: 39° 59' 19.295 N From: Lat/Long Easting: 2,092,590.64 usft Longitude: 109° 23' 8.639 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.04 13.200 in

Well NBU 922-36J1CS, 1247 FSL 2133 FEL

 Well Position
 +N/-S
 0.00 ft
 Northing:
 14,526,021.20 usft
 Latitude:
 39° 59' 19.295 N

 +E/-W
 0.00 ft
 Easting:
 2,092,590.64 usft
 Longitude:
 109° 23' 8.639 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,968.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 2011/02/07 11.07 65.89 52,374

PLAN #2 SURFACE Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 10.36

lan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,241.44	18.83	9.08	1,224.59	151.38	24.18	2.00	2.00	0.00	9.08	
2,954.96	18.83	9.08	2,846.41	697.49	111.43	0.00	0.00	0.00	0.00	
3,896.40	0.00	0.00	3,771.00	848.87	135.61	2.00	-2.00	0.00	180.00 D	TGT_NBU 922-36J1
4,011.74	0.35	149.04	3,886.34	848.57	135.79	0.30	0.30	129.22	149.04	
8,782.49	0.35	149.04	8,657.00	823.87	150.61	0.00	0.00	0.00	0.00 PI	BHL_NBU 922-36J1



SDIPlanning Report



Database: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

 Project:
 Uintah County, UT UTM12

 Site:
 NBU 922-360 PAD

 Well:
 NBU 922-36J1CS

Wellbore: OH

Company:

Design: PLAN #2 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

gn:	PLAN #2 SUR	KFACE							
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00	0.00	0.00 0.00 0.00	0.00 100.00 200.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
300.00		0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build									
400.00	2.00	9.08	399.98	1.72	0.28	1.74	2.00	2.00	0.00
500.00	4.00	9.08	499.84	6.89	1.10	6.98	2.00	2.00	0.00
600.00		9.08	599.45	15.50	2.48	15.69	2.00	2.00	0.00
700.00		9.08	698.70	27.53	4.40	27.87	2.00	2.00	0.00
800.00		9.08	797.47	42.98	6.87	43.51	2.00	2.00	0.00
900.00	12.00	9.08	895.62	61.82	9.88	62.59	2.00	2.00	0.00
1,000.00	14.00	9.08	993.06	84.03	13.42	85.08	2.00	2.00	0.00
1,100.00		9.08	1,089.64	109.59	17.51	110.95	2.00	2.00	0.00
1,175.57		9.08	1,162.00	131.10	20.94	132.73	2.00	2.00	0.00
GREEN RI			,						
1,200.00		9.08	1,185.27	138.46	22.12	140.18	2.00	2.00	0.00
1,241.44		9.08	1,224.59	151.38	24.18	153.27	2.00	2.00	0.00
·	.51 hold at 1241.44		,						
1,300.00		9.08	1,280.01	170.05	27.17	172.16	0.00	0.00	0.00
1,400.00		9.08	1,374.66	201.92	32.26	204.43	0.00	0.00	0.00
1,500.00		9.08	1,469.31	233.79	37.35	236.69	0.00	0.00	0.00
1,600.00		9.08	1,563.96	265.66	42.44	268.96	0.00	0.00	0.00
1,700.00	18.83	9.08	1,658.61	297.53	47.53	301.22	0.00	0.00	0.00
1,800.00	18.83	9.08	1,753.26	329.40	52.62	333.49	0.00	0.00	0.00
1,900.00	18.83	9.08	1,847.90	361.27	57.71	365.76	0.00	0.00	0.00
2,000.00	18.83	9.08	1,942.55	393.14	62.81	398.02	0.00	0.00	0.00
2,100.00		9.08	2,037.20	425.01	67.90	430.29	0.00	0.00	0.00
2,200.00	18.83	9.08	2,131.85	456.88	72.99	462.56	0.00	0.00	0.00
2,300.00	18.83	9.08	2,226.50	488.75	78.08	494.82	0.00	0.00	0.00
2,400.00		9.08	2,321.15	520.62	83.17	527.09	0.00	0.00	0.00
2,442.11		9.08	2,361.00	534.04	85.31	540.67	0.00	0.00	0.00
8 5/8"									
2,500.00	18.83	9.08	2,415.80	552.49	88.26	559.35	0.00	0.00	0.00
2,600.00		9.08	2,510.45	584.36	93.35	591.62	0.00	0.00	0.00
2,700.00		9.08	2,605.09	616.23	98.44	623.89	0.00	0.00	0.00
2,800.00		9.08	2,699.74	648.10	103.54	656.15	0.00	0.00	0.00
2,900.00		9.08	2,794.39	679.97	108.63	688.42	0.00	0.00	0.00
2,954.96		9.08	2,846.41	697.49	111.43	706.15	0.00	0.00	0.00
Start Drop 3.000.00		0.00	2 000 15	711 51	112.67	720.25	2.00	2.00	0.00
3,000.00	17.93	9.08	2,889.15	711.51	113.67	720.35	2.00	-2.00	0.00
3,100.00		9.08	2,984.81	740.26	118.26	749.46	2.00	-2.00	0.00
3,200.00		9.08	3,081.43	765.70	122.32	775.21	2.00	-2.00	0.00
3,300.00		9.08	3,178.89	787.79	125.85	797.58	2.00	-2.00	0.00
3,400.00		9.08	3,277.08	806.51	128.84	816.53	2.00	-2.00	0.00
3,500.00	7.93	9.08	3,375.86	821.83	131.29	832.04	2.00	-2.00	0.00
3.600.00	5.93	9.08	3,475.12	833.74	133.19	844.10	2.00	-2.00	0.00
3,700.00		9.08	3,574.75	842.22	134.55	852.69	2.00	-2.00	0.00
3,800.00		9.08	3,674.61	847.27	135.35	857.80	2.00	-2.00	0.00
3,896.40		0.00	3,771.00	848.87	135.61	859.42	2.00	-2.00	0.00
	0.30 TFO 149.04 -								
3,900.00		149.04	3,774.60	848.87	135.61	859.42	0.30	0.30	0.00
,									
4,000.00		149.04	3,874.60	848.63	135.75	859.21	0.30	0.30	0.00
4,011.74	0.35	149.04	3,886.34	848.57	135.79	859.16	0.30	0.30	0.00



SDI Planning Report



EDM5000-RobertS-Local Database: Company:

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 NBU 922-360 PAD Site: Well: NBU 922-36J1CS

Wellbore: ОН

Design: PLAN #2 SURFACE Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

esign:	PLAN #2 SUR	FACE							
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start 4770.7	'5 hold at 4011.74	I MD							
4,100.00	0.35	149.04	3,974.59	848.11	136.06	858.76	0.00	0.00	0.00
4,200.00	0.35	149.04	4,074.59	847.60	136.37	858.30	0.00	0.00	0.00
4,300.00	0.35	149.04	4,174.59	847.08	136.68	857.85	0.00	0.00	0.00
4,361.41	0.35	149.04	4,236.00	846.76	136.88	857.57	0.00	0.00	0.00
WASATCH 4,400.00	0.25	149.04	4 274 FO	946 FG	127.00	957.40	0.00	0.00	0.00
4,500.00	0.35 0.35	149.04	4,274.59 4,374.59	846.56 846.04	137.00 137.31	857.40 856.94	0.00	0.00	0.00
4,600.00	0.35	149.04	4,474.58	845.53	137.62	856.49	0.00	0.00	0.00
4,700.00	0.35	149.04	4,574.58	845.01	137.02	856.04	0.00	0.00	0.00
4,800.00	0.35	149.04	4,674.58	844.49	138.24	855.58	0.00	0.00	0.00
4,900.00	0.35	149.04	4,774.58	843.97	138.55	855.13	0.00	0.00	0.00
4,961.42	0.35	149.04	4,836.00	843.65	138.74	854.85	0.00	0.00	0.00
_	6.00 NBU 922-36.		4.0= : ==	0.45	100.00	05: 55			
5,000.00	0.35	149.04	4,874.58	843.45	138.86	854.67	0.00	0.00	0.00
5,100.00	0.35	149.04	4,974.58	842.94	139.17	854.22	0.00	0.00	0.00
5,200.00	0.35	149.04	5,074.57	842.42	139.48	853.77	0.00	0.00	0.00
5,300.00	0.35	149.04	5,174.57	841.90	139.79	853.31	0.00	0.00	0.00
5,400.00	0.35	149.04	5,274.57	841.38	140.10	852.86	0.00	0.00	0.00
5,500.00	0.35	149.04	5,374.57	840.86	140.41	852.41	0.00	0.00	0.00
5,600.00	0.35	149.04	5,474.57	840.35	140.72	851.95	0.00	0.00	0.00
5,700.00	0.35	149.04	5,574.56	839.83	141.03	851.50	0.00	0.00	0.00
5,800.00	0.35	149.04	5,674.56	839.31	141.34	851.05	0.00	0.00	0.00
5,900.00	0.35	149.04	5,774.56	838.79	141.66	850.59	0.00	0.00	0.00
6,000.00	0.35	149.04	5,874.56	838.27	141.97	850.14	0.00	0.00	0.00
6,100.00	0.35	149.04	5,974.56	837.76	142.28	849.69	0.00	0.00	0.00
6,200.00	0.35	149.04	6,074.56	837.24	142.59	849.23	0.00	0.00	0.00
6,300.00	0.35	149.04	6,174.55	836.72	142.90	848.78	0.00	0.00	0.00
6,400.00	0.35	149.04	6,274.55	836.20	143.21	848.32	0.00	0.00	0.00
6,500.00	0.35	149.04	6,374.55	835.69	143.52	847.87	0.00	0.00	0.00
6,578.45	0.35	149.04	6,453.00	835.28	143.76	847.52	0.00	0.00	0.00
MESAVERD	E								
6,600.00	0.35	149.04	6,474.55	835.17	143.83	847.42	0.00	0.00	0.00
6,700.00	0.35	149.04	6,574.55	834.65	144.14	846.96	0.00	0.00	0.00
6,800.00	0.35	149.04	6,674.54	834.13	144.45	846.51	0.00	0.00	0.00
6,900.00	0.35	149.04	6,774.54	833.61	144.76	846.06	0.00	0.00	0.00
7,000.00	0.35	149.04	6,874.54	833.10	145.07	845.60	0.00	0.00	0.00
7,100.00	0.35	149.04	6,974.54	832.58	145.38	845.15	0.00	0.00	0.00
7,100.00	0.35	149.04	7,074.54	832.06	145.69	844.70	0.00	0.00	0.00
7,300.00	0.35	149.04	7,074.54	831.54	146.00	844.24	0.00	0.00	0.00
7,400.00	0.35	149.04	7,174.54	831.02	146.32	843.79	0.00	0.00	0.00
7,500.00	0.35	149.04	7,374.53	830.51	146.63	843.34	0.00	0.00	0.00
	0.35	149.04		829.99		842.88	0.00	0.00	0.00
7,600.00 7,700.00	0.35	149.04 149.04	7,474.53 7,574.53	829.99 829.47	146.94 147.25	842.88 842.43	0.00	0.00	0.00
7,800.00	0.35	149.04	7,574.53 7,674.53	828.95	147.25	841.98	0.00	0.00	0.00
7,900.00	0.35	149.04	7,774.52	828.44	147.87	841.52	0.00	0.00	0.00
8,000.00	0.35	149.04	7,874.52	827.92	148.18	841.07	0.00	0.00	0.00
8,100.00	0.35	149.04	7,974.52	827.40	148.49	840.61	0.00	0.00	0.00
8,200.00	0.35	149.04	8,074.52	826.88	148.80	840.16 839.71	0.00	0.00	0.00
8,300.00 8,400.00	0.35 0.35	149.04 149.04	8,174.52 8,274.52	826.36 825.85	149.11 149.42	839.71 839.25	0.00 0.00	0.00 0.00	0.00 0.00
8,500.00	0.35	149.04	8,274.52 8,374.51	825.85 825.33	149.42	839.25 838.80	0.00	0.00	0.00
8,600.00	0.35	149.04	8,474.51	824.81	150.04	838.35	0.00	0.00	0.00



SDIPlanning Report



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12

 Site:
 NBU 922-36O PAD

 Well:
 NBU 922-36J1CS

Wellbore: OH

Design: PLAN #2 SURFACE

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.00 8,782.49 TD at 8782.4	0.35 0.35 9 - PBHL_NBU 9	149.04 149.04 022-36J1CS	8,574.51 8,657.00	824.29 823.87	150.35 150.61	837.89 837.52	0.00 0.00	0.00 0.00	0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
DTGT_NBU 922-36J10 - plan hits target c - Circle (radius 15.	enter	0.00	3,771.00	848.87	135.61	14,526,872.39	2,092,710.86	39° 59' 27.685 N	109° 23' 6.896 W
TOC @ 4836.00 NBU		0.00	4,836.00	843.65	138.74	14,526,867.23	2,092,714.08	39° 59' 27.634 N	109° 23' 6.856 W
PBHL_NBU 922-36J10 - plan hits target co - Circle (radius 25.	enter	0.00	8,657.00	823.87	150.61	14,526,847.66	2,092,726.31	39° 59' 27.438 N	109° 23' 6.704 W

Casing Points						
	Measured	Vertical		Casing	Hole	
	Depth	Depth		Diameter	Diameter	
	(ft)	(ft)	Name	(in)	(in)	
	2,442.11	2,361.00 8 5/8"		8.625	11.000	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,175.57	1,162.00	GREEN RIVER		0.00	
	4,361.41	4,236.00	WASATCH		0.00	
	6,578.45	6,453.00	MESAVERDE		0.00	

Plan Annotations					
Measured	Vertical	Local Coor	dinates		
Depth (ft)	Depth (ft)	+N/-S	+E/-W	Commont	
(11)	(11)	(ft)	(ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
1,241.44	1,224.59	151.38	24.18	Start 1713.51 hold at 1241.44 MD	
2,954.96	2,846.41	697.49	111.43	Start Drop -2.00	
3,896.40	3,771.00	848.87	135.61	Start DLS 0.30 TFO 149.04	
4,011.74	3,886.34	848.57	135.79	Start 4770.75 hold at 4011.74 MD	
8,782.49	8,657.00	823.87	150.61	TD at 8782.49	

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9
	DIVISION OF OIL, GAS, AND MININ	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
	RY NOTICES AND REPORTS O		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	sals to drill new wells, significantly deepen exi ugged wells, or to drill horizontal laterals. Use	isting wells below current APPLICATION FOR PERMIT TO	7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047516000000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE Street, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 36	IP, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
The operator reque DQX/LTC, the drillin	□ ACIDIZE ✓ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR □ WATER SHUTOFF □ WILDCAT WELL DETERMINATION DMPLETED OPERATIONS. Clearly show all pertine ests changes to the production of g program to allow for the use of variance for FIT Requirements. □ explanation. Thank you.	ent details including dates, depths, asing program to Ultra of a Closed Loop system Please see attached	·
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Jaime Scharnowske SIGNATURE	720 929-6304	Regulartory Analyst DATE	
N/A		10/17/2011	

NBU 922-36J1CS Drilling Program
1 of 7

Kerr-McGee Oil & Gas Onshore, L.P.

NBU 922-36J1CS

 Surface:
 1247 FSL / 2113 FEL
 SWSE

 BHL:
 2071 FSL / 1809 FEL
 NWSE

Section 36 T9S R22E

Uintah County, Utah Mineral Lease: ML-22650

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,145'	
Birds Nest	1,425'	Water
Mahogany	1,799'	Water
Wasatch	4,223'	Gas
Mesaverde	6,442'	Gas
MVU2	7,449'	Gas
MVL1	8,001'	Gas
TVD	8,644'	
TD	8.779'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 922-36J1CS Drilling Program

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 8644' TVD, approximately equals 5,532 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,618 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 922-36J1CS Drilling Program 3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 922-36J1CS Drilling Program 4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

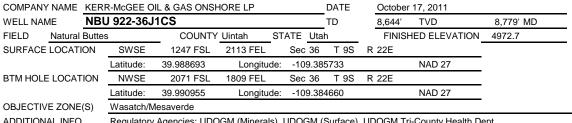
Drilling Program

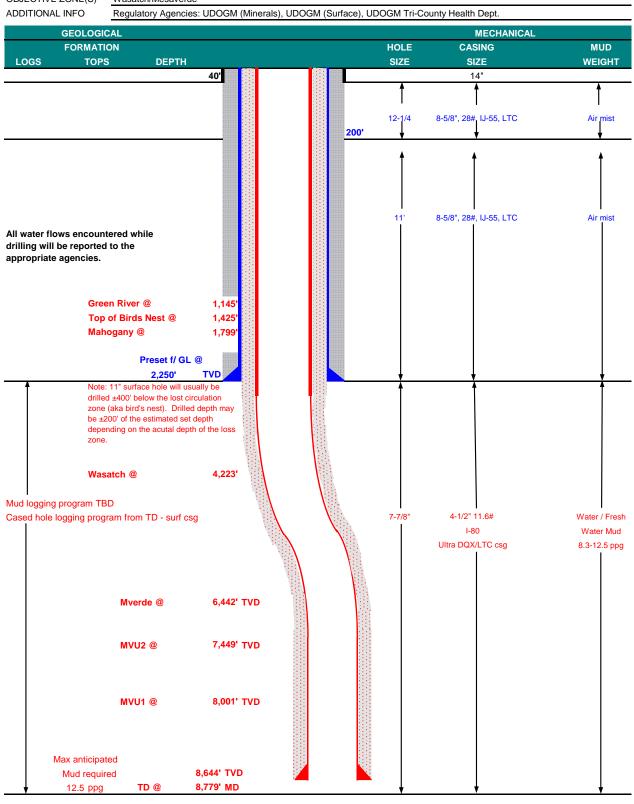
5 of 7



NBU 922-36J1CS

KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM





Drilling Program

6 of 7

KerrMcGee

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM	<u>/</u>								DESIGN	FACTORS	
_										LTC	DQX
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLL	APSE	TENSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,250	28.00	IJ-55	LTC	2.40	1.79	6.31	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.13		3.24
	4-1/2"	5,000	to	8,779'	11.60	I-80	LTC	1.11	1.13	6.29	

Surface Casing:

NBU 922-36J1CS

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water	to surface,	option 2 w	ill be utilized	
Option 2 LEAD	1,750'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	3,719'	Premium Lite II +0.25 pps	280	20%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,060'	50/50 Poz/G + 10% salt + 2% gel	1,200	35%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

PRODUCTION Float shoe, 1 jt, float collar. No centralizers will be used.	

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

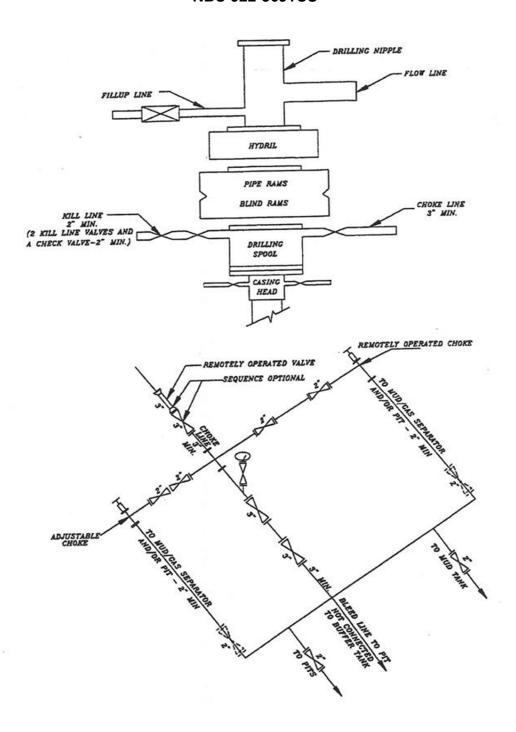
wost rigs have PVT System	for mud monitoring. If no PVT is available, visual monitoring w	iii de utilizea.	
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel		
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

Drilling Program 7 of 7

NBU 922-36J1CS

EXHIBIT A NBU 922-36J1CS



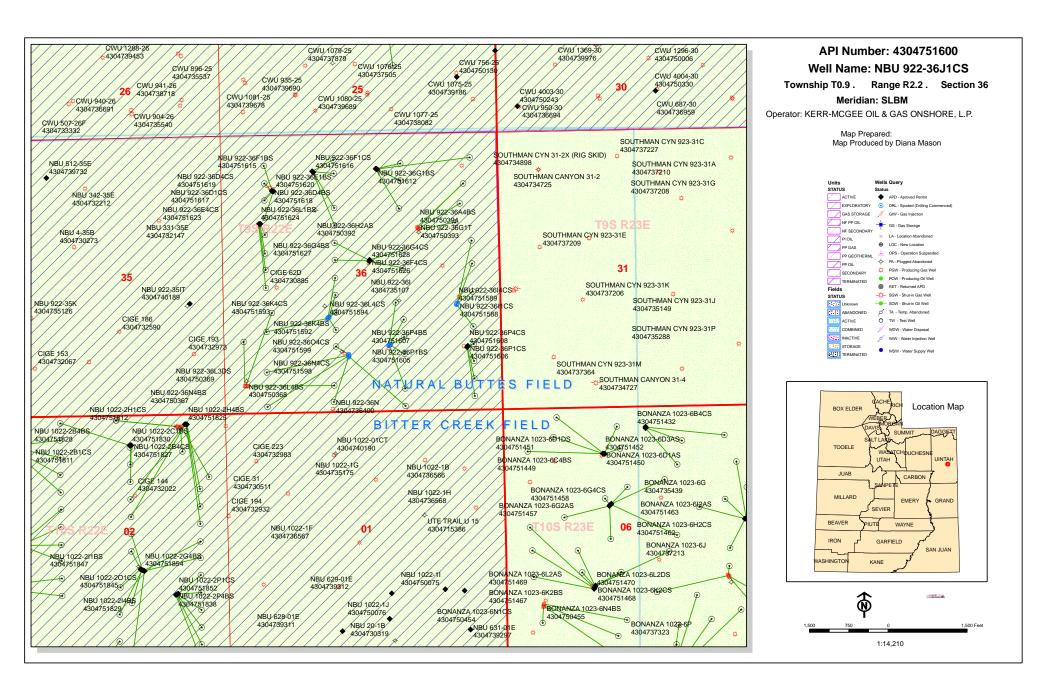
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

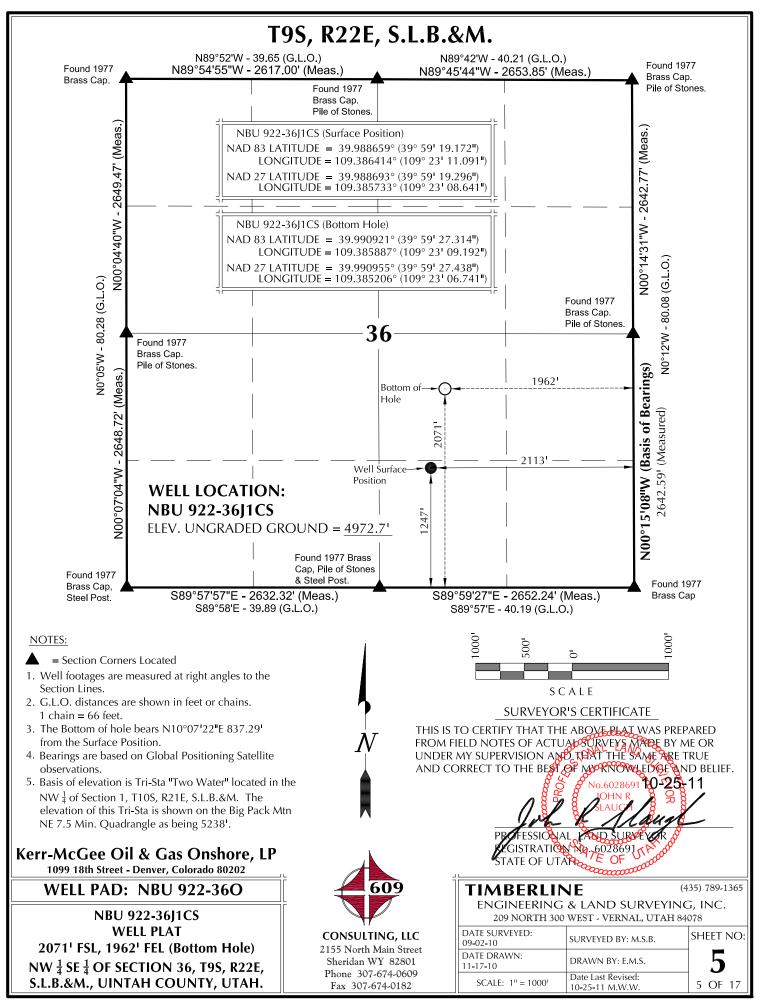
Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650
SUNDF	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deeper gged wells, or to drill horizontal laterals. I		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047516000000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHC treet, Suite 600, Denver, CO, 80217 3779	ONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SWSE Section: 36	P, RANGE, MERIDIAN: Township: 09.0S Range: 22.0E Meridian:	S	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE	☐ ALTER CASING	CASING REPAIR
✓ NOTICE OF INTENT Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
10/17/2011	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
12 DESCRIBE PROPOSED OF CO	MPLETED OPERATIONS. Clearly show all pe	rtinent details including dates, denths, v	volumes etc
The operator would possible collision issu location will be 20	d like to change the bottom he. A new directional survey is 071 FSL and 1962 FEL. With to MD should be 8782 and TVD	ole footage calls due to a attached. New bottom hol he adjustment, the new	
			ate: 11/10/2011 y:
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 10/17/2011	







JOE JOHNSON LANDMAN KERR-MCGEE ONSHORE OIL & GAS, L.P.
1099 18TH STREET, SUITE 1800
DENVER, CO 80202
720-929-6708 • FAX 720-929-7708
E-MAIL: JOE.JOHNSON@ANADARKO.COM

October 27, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 922-36J1CS

T9S-R22E

Section 36: SWSE/NWSE Surface: 1247' FSL, 2113' FEL Bottom Hole: 2071' FSL, 1962' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-36J1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman

Site: NBU 922-360 PAD Well: NBU 922-36J1CS

Wellbore: OH

Scientific Drilling

Design: PLAN #2 SURFACE



Rocky Mountain Operations WELL DETAILS: NBU 922-36J1CS GL 4968 & KB 4 @ 4972.00ft (ASSUMED) +N/-S +E/-W **Easting** Northing Latittude Longitude 0.00 0.00 14526021.20 2092590.65 39° 59' 19.295 N 109° 23' 8.639 W **DESIGN TARGET DETAILS** Name DTGT TVD +N/-S +E/-W **Northing** Easting Latitude Longitude Shape 3771.00 848.87 135.61 14526872.38 2092710.86 39° 59' 27.685 N 109° 23' 6.896 W Circle (Radius: 15 - plan hits target center TOC 138.74 14526867.22 2092714.08 39° 59' 27.634 N 109° 23' 6.856 W Point 4836.00 843.65 plan hits target center **PBHL** 8657.00 823.87 150.61 14526847.65 2092726.31 39° 59' 27.438 N 109° 23' 6.704 WCircle (Radius: 25.0 - plan hits target center CASING DETAILS FORMATION TOP DETAILS **TVD** MD Name Size **TVDPath MDPath** Formation 2361.00 8 5/8" 2442.11 8.625 1162.00 1175.57 **GREEN RIVER** 0.00 4236.00 4361.41 **WASATCH** 0.00 6453.00 6578.45 **MESAVERDE** 0.00 **SECTION DETAILS VSect** MD Inc Azi TVD +N/-S +E/-W Dleg **TFace** 0.00 0.00 0.00 0.00 0.00 0.00 0.000.00 0.00 300.00 300.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 9.08 1224.59 1241.44 9.08 18.83 151.38 24.18 2.00 153.27 2954.96 18.83 9.08 2846.41 697.49 111.43 0.00 0.00 706.15 3896.40 0.00 0.00 3771.00 848.87 135.61 2.00 180.00 859.42 DTGT_NBU 922-36J1CS 0.35 149.04 3886.34 135.79 0.30 149.04 859.16 4011.74 848.57 0.35 149.04 8657.00 8782.49 823.87 150.61 0.00 0.00 837.52 PBHL_NBU 922-36J1CS PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US

Ellipsoid: Clarke 1866

Zone: Zone 12N (114 W to 108 W) Location: SECTION 36 T9S R22E System Datum: Mean Sea Level

Sundry Numb**project? Whitah County, lunymmez:** 43047516000000

Scientific Drilling
Rocky Mountain Operations

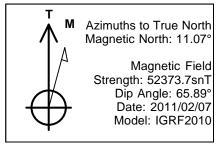
Site: NBU 922-360 PAD Well: NBU 922-36J1CS

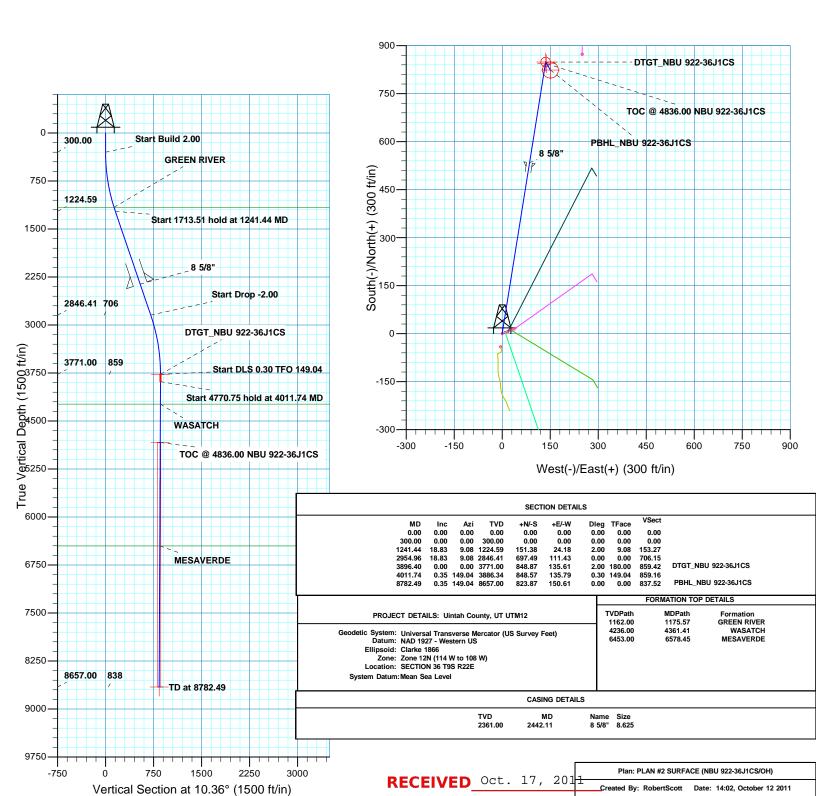
Wellbore: OH

Design: PLAN #2 SURFACE



WELL DETAILS: NBU 922-36J1CS GL 4968 & KB 4 @ 4972.00ft (ASSUMED) Easting 2092590.65 Longitude 109° 23' 8.639 W 0.00 14526021.20 39° 59' 19.295 N DESIGN TARGET DETAILS Easting TVD 3771.00 +N/-S 848.87 +E/-W 135.61 Northing 14526872.38 Longitude 23' 6.896 W Shape Circle (Radius: 15.00) Latitude DTGT 2092710.86 center тос 138.74 14526867.22 2092714.08 59' 27.634 N PBHL 8657.00 823.87 150.61 14526847.65 2092726.31 39° 59' 27.438 N 109° 23' 6.704 W Circle (Radius: 25.00) plan hits target center







Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

ОН

Plan: PLAN #2 SURFACE

Standard Planning Report

12 October, 2011





SDIPlanning Report



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 922-360 PAD

Well: NBU 922-36J1CS

Wellbore: OH

Geo Datum:

Map Zone:

Design: PLAN #2 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

Minimum Curvature

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Zone 12N (114 W to 108 W) System Datum:

Mean Sea Level

Site NBU 922-360 PAD, SECTION 36 T9S R22E

Northing: 14,526,021.20 usft Site Position: Latitude: 39° 59' 19.295 N From: Lat/Long Easting: 2,092,590.64 usft Longitude: 109° 23' 8.639 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.04 13.200 in

Well NBU 922-36J1CS, 1247 FSL 2133 FEL

 Well Position
 +N/-S
 0.00 ft
 Northing:
 14,526,021.20 usft
 Latitude:
 39° 59' 19.295 N

 +E/-W
 0.00 ft
 Easting:
 2,092,590.64 usft
 Longitude:
 109° 23' 8.639 W

Position Uncertainty 0.00 ft Wellhead Elevation: Ground Level: 4,968.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 2011/02/07 11.07 65.89 52,374

PLAN #2 SURFACE Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 10.36

lan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,241.44	18.83	9.08	1,224.59	151.38	24.18	2.00	2.00	0.00	9.08	
2,954.96	18.83	9.08	2,846.41	697.49	111.43	0.00	0.00	0.00	0.00	
3,896.40	0.00	0.00	3,771.00	848.87	135.61	2.00	-2.00	0.00	180.00 D	TGT_NBU 922-36J1
4,011.74	0.35	149.04	3,886.34	848.57	135.79	0.30	0.30	129.22	149.04	
8,782.49	0.35	149.04	8,657.00	823.87	150.61	0.00	0.00	0.00	0.00 PI	3HL_NBU 922-36J1



SDIPlanning Report



Database: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

 Project:
 Uintah County, UT UTM12

 Site:
 NBU 922-360 PAD

 Well:
 NBU 922-36J1CS

Wellbore: OH

Company:

Design: PLAN #2 SURFACE

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

gn:	PLAN #2 SUR	KFACE							
nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 100.00 200.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build									
400.00	2.00	9.08	399.98	1.72	0.28	1.74	2.00	2.00	0.00
500.00	4.00	9.08	499.84	6.89	1.10	6.98	2.00	2.00	0.00
600.00	6.00	9.08	599.45	15.50	2.48	15.69	2.00	2.00	0.00
700.00	8.00	9.08	698.70	27.53	4.40	27.87	2.00	2.00	0.00
800.00	10.00	9.08	797.47	42.98	6.87	43.51	2.00	2.00	0.00
900.00	12.00	9.08	895.62	61.82	9.88	62.59	2.00	2.00	0.00
1,000.00	14.00	9.08	993.06	84.03	13.42	85.08	2.00	2.00	0.00
1,100.00	16.00	9.08	1,089.64	109.59	17.51	110.95	2.00	2.00	0.00
1,175.57	17.51	9.08	1,162.00	131.10	20.94	132.73	2.00	2.00	0.00
GREEN RIV		0.00	.,.02.00	.51.10	20.01	.32.70	2.00	2.00	0.00
1,200.00	18.00	9.08	1,185.27	138.46	22.12	140.18	2.00	2.00	0.00
1,241.44	18.83	9.08	1,103.27	151.38	24.18	153.27	2.00	2.00	0.00
	51 hold at 1241.44		1,224.00	101.00	24.10	100.27	2.00	2.00	0.00
Start 1713.	31 11010 at 1241.4								
1,300.00	18.83	9.08	1,280.01	170.05	27.17	172.16	0.00	0.00	0.00
1,400.00	18.83	9.08	1,374.66	201.92	32.26	204.43	0.00	0.00	0.00
1,500.00	18.83	9.08	1,469.31	233.79	37.35	236.69	0.00	0.00	0.00
1,600.00	18.83	9.08	1,563.96	265.66	42.44	268.96	0.00	0.00	0.00
1,700.00	18.83	9.08	1,658.61	297.53	47.53	301.22	0.00	0.00	0.00
1,800.00	18.83	9.08	1,753.26	329.40	52.62	333.49	0.00	0.00	0.00
1,900.00	18.83	9.08	1,847.90	361.27	57.71	365.76	0.00	0.00	0.00
2,000.00	18.83	9.08	1,942.55	393.14	62.81	398.02	0.00	0.00	0.00
2,100.00	18.83	9.08	2,037.20	425.01	67.90	430.29	0.00	0.00	0.00
2,200.00	18.83	9.08	2,131.85	456.88	72.99	462.56	0.00	0.00	0.00
2,300.00	18.83	9.08	2,226.50	488.75	78.08	494.82	0.00	0.00	0.00
2,400.00	18.83	9.08	2,321.15	520.62	83.17	527.09	0.00	0.00	0.00
2,442.11	18.83	9.08	2,361.00	534.04	85.31	540.67	0.00	0.00	0.00
8 5/8"									
2,500.00	18.83	9.08	2,415.80	552.49	88.26	559.35	0.00	0.00	0.00
2,600.00	18.83	9.08	2,510.45	584.36	93.35	591.62	0.00	0.00	0.00
2,700.00	18.83	9.08	2,605.09	616.23	98.44	623.89	0.00	0.00	0.00
2,800.00	18.83	9.08	2,699.74	648.10	103.54	656.15	0.00	0.00	0.00
2,900.00	18.83	9.08	2,794.39	679.97	108.63	688.42	0.00	0.00	0.00
2,954.96	18.83	9.08	2,846.41	697.49	111.43	706.15	0.00	0.00	0.00
Start Drop	-2.00								
3,000.00	17.93	9.08	2,889.15	711.51	113.67	720.35	2.00	-2.00	0.00
2 100 00			2,984.81	740.26		749.46			0.00
3,100.00 3,200.00	15.93 13.93	9.08 9.08	2,984.81 3,081.43	740.26 765.70	118.26 122.32	749.46 775.21	2.00 2.00	-2.00 -2.00	0.00
3,200.00	13.93	9.08	3,081.43	765.70 787.79	122.32	775.21 797.58	2.00	-2.00 -2.00	0.00
3,400.00	9.93	9.08	3,176.69	806.51	123.65	816.53	2.00	-2.00 -2.00	0.00
3,500.00	7.93	9.08	3,277.06	821.83	131.29	832.04	2.00	-2.00 -2.00	0.00
3,600.00	5.93	9.08	3,475.12	833.74	133.19	844.10	2.00	-2.00	0.00
3,700.00	3.93	9.08	3,574.75	842.22	134.55	852.69	2.00	-2.00	0.00
3,800.00	1.93	9.08	3,674.61	847.27	135.35	857.80	2.00	-2.00	0.00
3,896.40	0.00	0.00	3,771.00	848.87	135.61	859.42	2.00	-2.00	0.00
Start DLS 0	.30 TFO 149.04 -	DTGT_NBU 922	2-36J1CS						
3,900.00	0.01	149.04	3,774.60	848.87	135.61	859.42	0.30	0.30	0.00
4,000.00	0.31	149.04	3,874.60	848.63	135.75	859.21	0.30	0.30	0.00
4,000.00	0.35	149.04	3,886.34	848.57	135.75	859.16	0.30	0.30	0.00



SDI Planning Report



EDM5000-RobertS-Local Database: Company:

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12 NBU 922-360 PAD Site: Well: NBU 922-36J1CS

Wellbore: ОН

Design: PLAN #2 SURFACE Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

sign:	PLAN #2 SUR	FACE							
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start 4770.7	'5 hold at 4011.74	4 MD							
4,100.00	0.35	149.04	3,974.59	848.11	136.06	858.76	0.00	0.00	0.00
4,200.00	0.35	149.04	4,074.59	847.60	136.37	858.30	0.00	0.00	0.00
4,300.00	0.35	149.04	4,174.59	847.08	136.68	857.85	0.00	0.00	0.00
4,361.41	0.35	149.04	4,236.00	846.76	136.88	857.57	0.00	0.00	0.00
WASATCH 4,400.00	0.25	149.04	4 274 50	946 FG	127.00	057.40	0.00	0.00	0.00
4,500.00	0.35 0.35	149.04	4,274.59 4,374.59	846.56 846.04	137.00 137.31	857.40 856.94	0.00	0.00	0.00
4,600.00	0.35	149.04	4,474.58	845.53	137.62	856.49	0.00	0.00	0.00
4,700.00	0.35	149.04	4,574.58	845.01	137.02	856.04	0.00	0.00	0.00
4,800.00	0.35	149.04	4,674.58	844.49	138.24	855.58	0.00	0.00	0.00
4,900.00	0.35	149.04	4,774.58	843.97	138.55	855.13	0.00	0.00	0.00
4,961.42	0.35	149.04	4,836.00	843.65	138.74	854.85	0.00	0.00	0.00
_	6.00 NBU 922-36.		4.0= : = 4	0.45	400.00	05: 55			
5,000.00	0.35	149.04	4,874.58	843.45	138.86	854.67	0.00	0.00	0.00
5,100.00	0.35	149.04	4,974.58	842.94	139.17	854.22	0.00	0.00	0.00
5,200.00	0.35	149.04	5,074.57	842.42	139.48	853.77	0.00	0.00	0.00
5,300.00	0.35	149.04	5,174.57	841.90	139.79	853.31	0.00	0.00	0.00
5,400.00	0.35	149.04	5,274.57	841.38	140.10	852.86	0.00	0.00	0.00
5,500.00	0.35	149.04	5,374.57	840.86	140.41	852.41	0.00	0.00	0.00
5,600.00	0.35	149.04	5,474.57	840.35	140.72	851.95	0.00	0.00	0.00
5,700.00	0.35	149.04	5,574.56	839.83	141.03	851.50	0.00	0.00	0.00
5,800.00	0.35	149.04	5,674.56	839.31	141.34	851.05	0.00	0.00	0.00
5,900.00	0.35	149.04	5,774.56	838.79	141.66	850.59	0.00	0.00	0.00
6,000.00	0.35	149.04	5,874.56	838.27	141.97	850.14	0.00	0.00	0.00
6,100.00	0.35	149.04	5,974.56	837.76	142.28	849.69	0.00	0.00	0.00
6,200.00	0.35	149.04	6,074.56	837.24	142.59	849.23	0.00	0.00	0.00
6,300.00	0.35	149.04	6,174.55	836.72	142.90	848.78	0.00	0.00	0.00
6,400.00	0.35	149.04	6,274.55	836.20	143.21	848.32	0.00	0.00	0.00
6,500.00	0.35	149.04	6,374.55	835.69	143.52	847.87	0.00	0.00	0.00
6,578.45	0.35	149.04	6,453.00	835.28	143.76	847.52	0.00	0.00	0.00
MESAVERD	E								
6,600.00	0.35	149.04	6,474.55	835.17	143.83	847.42	0.00	0.00	0.00
6,700.00	0.35	149.04	6,574.55	834.65	144.14	846.96	0.00	0.00	0.00
6,800.00	0.35	149.04	6,674.54	834.13	144.45	846.51	0.00	0.00	0.00
6,900.00	0.35	149.04	6,774.54	833.61	144.76	846.06	0.00	0.00	0.00
7,000.00	0.35	149.04	6,874.54	833.10	145.07	845.60	0.00	0.00	0.00
7,100.00	0.35	149.04	6,974.54	832.58	145.38	845.15	0.00	0.00	0.00
7,100.00	0.35	149.04	7,074.54	832.06	145.56	844.70	0.00	0.00	0.00
7,300.00	0.35	149.04	7,074.54	831.54	146.00	844.24	0.00	0.00	0.00
7,400.00	0.35	149.04	7,274.53	831.02	146.32	843.79	0.00	0.00	0.00
7,500.00	0.35	149.04	7,374.53	830.51	146.63	843.34	0.00	0.00	0.00
						842.88			
7,600.00 7,700.00	0.35 0.35	149.04 149.04	7,474.53 7,574.53	829.99 829.47	146.94 147.25	842.88 842.43	0.00 0.00	0.00 0.00	0.00 0.00
7,800.00	0.35	149.04	7,674.53 7,674.53	828.95	147.25	841.98	0.00	0.00	0.00
7,900.00	0.35	149.04	7,774.52	828.44	147.87	841.52	0.00	0.00	0.00
8,000.00	0.35	149.04	7,874.52	827.92	148.18	841.07	0.00	0.00	0.00
8,100.00	0.35	149.04	7,974.52	827.40	148.49	840.61	0.00	0.00	0.00
8,200.00	0.35	149.04	8,074.52	826.88	148.80	840.16 839.71	0.00	0.00	0.00
8,300.00 8,400.00	0.35 0.35	149.04 149.04	8,174.52 8,274.52	826.36 825.85	149.11 149.42	839.71 839.25	0.00 0.00	0.00 0.00	0.00 0.00
8,500.00	0.35	149.04	8,274.52 8,374.51	825.85 825.33	149.42	839.25 838.80	0.00	0.00	0.00
8,600.00	0.35	149.04	8,474.51	824.81	150.04	838.35	0.00	0.00	0.00

Sundry Number: 19520 API Well Number: 43047516000000



SDIPlanning Report



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP
Project: Uintah County, UT UTM12

 Site:
 NBU 922-36O PAD

 Well:
 NBU 922-36J1CS

Wellbore: OH

Design: PLAN #2 SURFACE

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 4 @ 4972.00ft (ASSUMED) GL 4968 & KB 4 @ 4972.00ft (ASSUMED)

True

Minimum Curvature

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,700.00 8,782.49 TD at 8782.4	0.35 0.35 9 - PBHL_NBU 9	149.04 149.04 022-36J1CS	8,574.51 8,657.00	824.29 823.87	150.35 150.61	837.89 837.52	0.00 0.00	0.00 0.00	0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
DTGT_NBU 922-36J10 - plan hits target c - Circle (radius 15.	enter	0.00	3,771.00	848.87	135.61	14,526,872.39	2,092,710.86	39° 59' 27.685 N	109° 23' 6.896 W
TOC @ 4836.00 NBU		0.00	4,836.00	843.65	138.74	14,526,867.23	2,092,714.08	39° 59' 27.634 N	109° 23' 6.856 W
PBHL_NBU 922-36J10 - plan hits target co - Circle (radius 25.	enter	0.00	8,657.00	823.87	150.61	14,526,847.66	2,092,726.31	39° 59' 27.438 N	109° 23' 6.704 W

Casing Points						
	Measured	Vertical		Casing	Hole	
	Depth	Depth		Diameter	Diameter	
	(ft)	(ft)	Name	(in)	(in)	
	2,442.11	2,361.00 8 5/8"		8.625	11.000	

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,175.57	1,162.00	GREEN RIVER		0.00	
	4,361.41	4,236.00	WASATCH		0.00	
	6,578.45	6,453.00	MESAVERDE		0.00	

Plan Annotations					
Measured	Vertical	Local Coor	dinates		
Depth (ft)	Depth (ft)	+N/-S	+E/-W	Comment	
(11)	(11)	(ft)	(ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
1,241.44	1,224.59	151.38	24.18	Start 1713.51 hold at 1241.44 MD	
2,954.96	2,846.41	697.49	111.43	Start Drop -2.00	
3,896.40	3,771.00	848.87	135.61	Start DLS 0.30 TFO 149.04	
4,011.74	3,886.34	848.57	135.79	Start 4770.75 hold at 4011.74 MD	
8,782.49	8,657.00	823.87	150.61	TD at 8782.49	

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>Ensign 139</u>
Submitted By KENNY MORRIS Phone Number
435- 828-0984
Well Name/Number NBU 922-36J1CS
Qtr/Qtr <u>SW/SE</u> Section <u>36</u> Township <u>9S</u> Range 22E
Lease Serial Number <u>ML-22650</u> API Number43047516000000
API Number43047310000000
Casing – Time casing run starts, not cementing times.
Production Casing
Other
DEC 0 6 2011
Date/Time 0 AM PM DIV. OF OIL, GAS & MININ
BOPE
Initial BOPE test at surface casing point
Other
Date/Time <u>12/4/2011</u> <u>18:00</u> AM PM
Rig Move
Location To:
Date/Time AM PM
Demonto MILL DOD TECT CHNDAY NICHT
Remarks WILL BOP TEST SUNDAY NIGHT

BLM - Vernal Field Office - Notification Form

Operator ANADARKO Rig Nan	ne/# <u>ENSIGN 139</u>
Submitted By SID ARMSTRONG	Phone Number <u>435- 828-0984</u>
Well Name/Number <u>NBU 922</u>	
Qtr/Qtr <u>SW/SE</u> Section <u>36</u>	Township <u>9S</u> _ Range 22E
Lease Serial Number ML-22650	
API Number 43047516000000	
	ومواللوا والمسالمين والماكم والمالية
Spud Notice – Spud is the initial s	spudding of the well, not drilling
out below a casing string.	
Date/Time	AM
<u>Casing</u> – Please report time casin	g run starts, not cementing
times.	·
Surface Casing	RECEIVED
Intermediate Casing	DEC 07 2011
Production Casing	DIV. OF OIL, GAS & MINING
Liner	of oil, and a langing
Other	
Date/Time <u>12/9/2011</u>	<u>10:00</u> AM ⊠ PM □
BOPE	
Initial BOPE test at surface	casing point
BOPE test at intermediate c	
30 day BOPE test	
Other	
Date/Time	AM PM
Remarks WILL BE MOVEING TO	NRU 922-36G4CS & TESTING
B.O.P'S	1100 711 000 100 0 1101110

Sundry Number: 21171 API Well Number: 43047516000000

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, spellocately deepen existing wells below current buttom-hole deepth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PRINTTO Direction of proposals to drill new wells, spellocately deepen existing wells below current buttom-hole deepth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PRINTTO Lityre or Well. Cass Well 1. Tyre or Well. 2. NAME or OPERATOR: RER. MCGES OIL & GAS ONSHORE, L.P. 2. JADORESS OF OPERATOR: 2. LOATON OF WELL 3. LOATON OF WELL 4. LOATON OF WELL 5. LOATON OF WELL 5. LOATON OF WELL 5. LOATON OF WELL 5. LOATON								
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill not wells, significantly deepen existing wells below current bottom-hold depth, recenter plugged wells, or to drill horizontal listerals. Use APPLICATION FOR PERMIT TO TANKINGAL DITTERS NAME: 1.1YPE OF WELL Cases Well 2. NAME OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE, L.P. 4. LOCATION OF WELL RER.MCCEE DUIL SO GROS ONSHORE DUIL SO GROSS ON TOWN OF THE DUIL STATE COLUMN OF THE DUIL STATE COLUM		STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9				
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hold depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL from for such proposals. 1. TYPE OF WELL COMPUTE TO SUBMISSION TYPE OF SUBMISSION ACTION OF WELL CHARGE WELL STATUS CHARGE W			G					
DOTOLT-NOTE OF MATERIAL BUTTES LTYPE OF WELL ASSESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KERR-MCCEE OIL & GAS ONNHORE, L.P. 3. ADDRESS OF OPERATOR. KIND OF SUBMISS OF CONTROL OF MATERIAL AND ADDRESS OF OIL & CASHING REPAIR OLD AND ADDRESS OF OPERATOR. CHANGE TO PRIVIOUS PLANS. CHANGE TO PRIVIOUS PLANS. CHANGE TO PRIVIOUS PLANS. CHANGE TO PRIVIOUS PLANS. CHANGE WELL STATUS. COMMITTICE TREAT TO SEPARATION. CHANGE WELL STATUS. CHANGE WE	SUNDF	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Sas Well ANME OF DEBATOR: KERN-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERN-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERN-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERN-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KERN-MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: KATURAL BUTTES 4. IOCATION OF WELL TOTAL OIL WILL STATE: UNITAL II. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION	bottom-hole depth, reenter plu	ugged wells, or to drill horizontal laterals. Use A						
3. ADDRESS OF OPERATOR: PHONE NUMBER: 720 929-6515 Ext NATURAL BUTTES A. DORATS OF OPERATOR: PHONE NUMBER: 720 929-6515 Ext NATURAL BUTTES A. LOCATION OF WELL TAY THE PROPERTY OF THE PROPERTY OF THE PARTY OF THE								
### ALDCATION OF WELL **POOTAGES AT SURFACE: **POOTAGE AT SURFACE: **POOTAG		HORE, L.P.						
TYPE OF SUBMISSION TYPE OF SUBMISSION ACIDIZE CHACK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION CHANGE WELL NAME CH								
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION THER DATA CHANGE WELL NAME CHANGE TUBING REPAIR CHANGE TUBING REPAIR CHANGE WELL NAME CHAN	FOOTAGES AT SURFACE: 1247 FSL 2113 FEL							
TYPE OF SUBMISSION TYPE OF ACTION NOTICE OF INTENT								
ACIDIZE ALTER CASING CASING REPAIR	11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA				
NOTICE OF INTENT Approximate date work will start: CHANGE WELL STATUS COMMINGLE PRODUCTION COMMINGLE PRODUCTION	TYPE OF SUBMISSION							
Jaime Scharnowske 720 929-6304 Regulartory Analyst SIGNATURE DATE	Approximate date work will start: SUBSEQUENT REPORT Date of Work Completion: 12/10/2011 SPUD REPORT Date of Spud: DRILLING REPORT Report Date: 12. DESCRIBE PROPOSED OR COMIRU ROTARY RIG. 2011. RAN 4-1 PRODUCTION CAS: 00:00 HRS. DETAIL COMPLETION REPORT	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION PINISHED DRILLING FROM 2442 L/2" 11.6# I-80 PRODUCTION CAING. RELEASED ENSIGN RIG 139 SOF CEMENT JOB WILL BE INCLICATION WILL IS WAITING ON FINAL COCATION WILL BE REFURBISHED	CHANGE TUBING COMMINGLE PRODUCING FORMATIONS FRACTURE TREAT PLUG AND ABANDON RECLAMATION OF WELL SITE SIDETRACK TO REPAIR WELL VENT OR FLARE SI TA STATUS EXTENSION OTHER AT details including dates, depths, vol. 2' TO 8805' ON DEC. 8, SING. CEMENTED ON DEC. 10, 2011 @ UDED WITH THE WELL OMPLETION ACTIVITIES AND UTILIZED AS PART Date	CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION MATER DISPOSAL APD EXTENSION OTHER: RIG REL-ACTS PIT Dlumes, etc. Accepted by the Utah Division of Oil, Gas and Mining O1/05/2012				
SIGNATURE DATE								
I 17/17/2011		/20 929-0304						

Sundry Number: 22434 API Well Number: 43047516000000

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML-22650			
SUNDR	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-36J1CS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047516000000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 73779 720 929-0	9. FIELD and POOL or WILDCAT: 65NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 3	STATE: UTAH					
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION					
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
1/20/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
THE SUBJECT WEL 1600 HRS. THE CH	COMPLETED OPERATIONS. Clearly show L WAS PLACED ON PRODUC RONOLOGICAL WELL HISTOF TH THE WELL COMPLETION R	CTION ON 01/20/2012 AT RY WILL BE SUBMITTED	<u> </u>			
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUME 435 781-7024	ER TITLE Regulatory Analyst				
SIGNATURE		DATE				
N/A		1/23/2012				

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

		ENDED R	EPORT]	FC	DRM 8			
	5. L		NATION AND	SEF	RIAL NUME	BER:			
)G			LOTTEE OR T	RIBI	E NAME				
	7. U	INIT or CA AC	REEMENT N	AME					
		UTU630	47A and NUMBER:			***************************************			
	1		2-36J1C						
	1	PI NUMBER: 430475							
R: 29-6304	10 F	IELD AND PO	OOL, OR WILE						
3-0004					-	E,			
		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 36 9S 22E S							
		COUNTY		13	. STATE	UTAH			
TO PRODU		17. ELEVA	TIONS (DF, RI	KB, F					
TIONS, HOW		498 21. DEPTH	6 GL	1D					
HONS, HOW	WANT	PLUG	SET:	VD.					
D?	NO	✓ YES	s 🔲 (si	ubmi	t analysis)				
RVEY?	NO		=		t report)				
NVET!	NO	YES	(5)	ubmi	t copy)				
NT TYPE & OF SACKS	SLU VOLUM		CEMENT TOP	**	AMOUNT	PULLED			
28									
900	<u> </u>		0						
1,495			1790						
	— —	-+			 				
MD)	SIZE	DEP	TH SET (MD)	+	PACKER	SET (MD)			
RECORD									
Bot - MD)	SIZE	NO. HOLES	 	_	TION STA	TUS			
6,193	0.36	45	Open 🗸		Squeezed				
8,474	0.36	165	Open J		Squeezed Squeezed				
			Open		Squeezed				
		L	R	E	CEI	VED			
MATERIAL				Er	220	0046			
O OTTA	WA SA	AND		L	28	2012			

14. DATE PUDDED: 15. DAYE T.D. REACHED: 16. DATE COMPLETED: 12/8/2011 12/8/2011 12/8/2011 12/8/2011 12/8/2011 12/07/2012 ABANDONED REACY TO PRODUCE			L	DIVISI	ON O	FOIL, (GAS A	AND I	MININ	G					ASE DE:		AND SI	ERIAL NUMB	ER:
DITY	WEL	L COM	PLET	ION	OR F	RECO	MPL	ETIC	ON RI	EPOF	RT AND	LOG		6. IF	INDIAN,	ALLOTTEE	OR TRI	BE NAME	
8. PYER OF WORK. MELL OF POWER STATE DEEP	1a. TYPE OF WELL	;	OI W	ELL] ;	GAS Z]	DRY		ОТН	ER			1			NT NAM	ΛE	
NBU 922-6301CS NBU	b. TYPE OF WORL	< :																	*
ADDRESS OF OFFERTION			DE EN	EEP-]	RE- ENTRY]	DIFF. RESVR.		ОТН	ER								
ADDRESS OF OPERATOR			8.64	S ON	SHUE)E D	-	****											
LOCATION OF WELL PROPURSES			L & GP	13 ON	SHUF	₹E, L.P.					llaway:-								
4. LOCATION OF WELL (FOOTAGES) AT SURFACE SWSE 1247 FSL 2113 FEL S36,T9S,R22E AT TOP PRODUCING INTERVAL. REPORTED BIBLOW. NWSE 2079 FSL 1985 FEL S36,T9S,R22E AT TOP PRODUCING INTERVAL. REPORTED BIBLOW. NWSE 2079 FSL 1985 FEL S36,T9S,R22E AT TOTAL DEEPTH. NWSE 2055 FSL 1969 FEL S36,T9S,R22E AT TOTAL DEEPTH. NWSE 2055 FSL 1969 FEL S36,T9S,R22E BHL			С	ITY DE	NVEF	₹	STATE	СО	ZIP 802	217	1		304						
AT TOP PRODUCING INTERVALE REPORTED BELOW: NWSE 2079 FSL 1985 FEL S36, T9S, R22E AT TOP AT												,							 E,
AT TOP PRODUCING INTERVAL REPORTED BELOW. NWSE 2079 FSL 1985 FEL S36,T9S,R22E AT TOTAL DEPTH: NWSE 2055 FSL 1969 FEL S36,T9S,R22E AT TOTAL DEPTH: NWSE 2055 FSL 1969 FEL S36,T9S,R22E BHL	AT SURFACE:	SWSE 1	247 F	SL 21	13 FE	L S36,7	Г9S,R	22E											
AT TOTAL DEPTH: NWSE 2055 FSL 1969 FEL S36,T9S,R22E	AT TOP PRODU	CING INTERV	'AL REPOF	RTED BEL	.ow: N	WSE 2	2079 F	SL 1	985 FI	EL S36	5.T9S.R	22F		"	VOL	30 B	3	22E 3	
A DATE SPUDDED: 15 APET D. REACHED 16. DATE COMPARIETO. 12/8/2011 12/8/2011 16. DATE COMPARIETO. 14/806 GL 14											3, 100,10			12 (COLINITY			12 STATE	
10.6/2011 12/81/2011 12/81/2011 18. DATE COMPLETED. 18.	AT TOTAL DEPT	H: NWS	E 2055	FSL	1969	FEL S3	6,T95	5,R22	B B	HL	bu r	tsm						13. STATE	UTAH
18 TOTAL DEPTH: MD 8,805		D: 1			HED:									·= [7]			F, RKB	, RT, GL):	
TVD 8.692 TVD 8,625 Submit snalysis (Submit snalysis)		MD 0 0			IO DILIC														
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) 23. 23. 23. 24.	io. To inte bei Tit.	0,0			19. FLUG	DACK I.D.,	•	•		20. IF I	MULTIPLE CO	OMPLETIONS	s, HOW	MANY? *					
WAS WELL CORECT NO YES (Submit analysis) WAS DET RUN? NO YES (Submit analysis) (Submit analysis) WAS DET RUN? NO YES (Submit analysis) (Submit analysis) WAS DET RUN? NO YES (Submit analysis) (Submit analysis) WAS DET RUN? NO YES WEIGHT (MPL) TOP (MDL) BOTTOM (MDL) STAGE CEMENTER CEMENT TYPE & SULURRY NO OF SACKS VOLUME (BBL) CEMENT TOP ** AMOUNT PURCHASED NO YES WEIGHT (MPL) WAS DET RUN? NO YES WAS DET RUN? NO OF SACKS SULURRY NO OF SACKS NO OF S	2. TYPE ELECTRIC			IICAL LOC	SS RUN (Submit copy					23						TVE		
WAS DST RUN? NO YES (Submit report)							,					L CORED?		NO	7	YES 🗍	(Sub	mit analysis)	
A. CASING AND LINER RECORD (Report all strings set in well)	TOE/ON-OL		JELAIN	O/ I LI	VII						WAS DST	RUN?			=				
HOLE SIZE SIZE/GRADE WEIGHT (#/ft.) TOP (MD) BOTTOM (MD) STAGE CEMENTER DEPTH CEMENT TYPE & SLURRY VOLUME (BBL) CEMENT TOP ** AMOUNT PU 20" 14" STL 36.7# 0 40 28 00 0 0 111 8 5/8" IJ-55 28# 0 2,452 900 0 0 7 7/8" 4 1/2" I-80 11.6# 0 8,782 1,495 1790 85. TUBING RECORD 86. FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (TOP/BCI MD) SIZE NO. HOLES PERFORATION STATUS AND WASATCH 5,459 6,193 5,459 6,193 0.36 45 Open ✓ Squeezed □ 87. MACION FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. 10. DEPTH INTERVAL											DIRECTIO	NAL SURVE	Y?	NO	<u> </u>	YES 🗸	(Sub	mit copy)	
14" STL 36.7# 0 40 28	4. CASING AND L	INER RECOR	D (Report	all strings	set in w	eli)													
11	HOLE SIZE	SIZE/GR/	ADE.	WEIGHT	(#/ft.)	TOP (N	ID)	вотто	M (MD)							CEMENT	TOP **	AMOUNT	PULLE
1.495	20"	14"	STL	36.7	7#	0		4	0				28						e-i
28. TUBING RECORD SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET 2 3/8" 7,975 27. PERFORATION RECORD FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES PERFORATION STATUS A) WASATCH 5,459 6,193 5,459 6,193 0.36 45 Open		8 5/8"	IJ-55	28	#	0		2,4	452				900			0			
SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET	7 7/8"	4 1/2"	I-80	11.6	3#	0		8,	782				1,495			179	0		
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SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET																			
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2 3/8" 7,975 26. PRODUCING INTERVALS FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES PERFORATION STATUS A) WASATCH 5,459 6,193 5,459 6,193 0.36 45 Open ✓ Squeezed ☐ B) MESAVERDE 6,670 8,474 6,670 8,474 0.36 165 Open ✓ Squeezed ☐ C) D) 28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL PUMP 9,127 BBLS SLICK H2O & 203,752 LBS 30/50 OTTAWA SAND 9 STAGES DIV. OF OIL, GAS & N	5. TUBING RECO	· · · · · · · · · · · · · · · · · · ·																	
27. PERFORATION RECORD FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES PERFORATION STATUS A) WASATCH 5,459 6,193 0.36 45 Open 3 squeezed 6,670 8,474 0.36 165 Open 3 squeezed 0 D) Open Squeezed 0 B. MESAVERDE 6,670 8,474 0.36 165 Open 3 squeezed 0 D) Open Squeezed 0 B. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. DEPTH INTERVAL				PACK	ER SET (MD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)		SIZE		EPTH SET (MD)	PACKER S	ET (MD)
FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES PERFORATION STATUS A) WASATCH 5,459 6,193 0.36 45 Open			1/5						<u> </u>				L						
A) WASATCH 5,459 6,193 5,459 6,193 0.36 45 Open			TOP	(MD)	BOTTO	M (MD)	TOP (TVD	LPOTTO	M (T) (D)				0.75					
B MESAVERDE 6,670 8,474 0.36 165 Open	· · · · · · · · · · · · · · · · · · ·		┼──				101-(100)	ВОТТО	VI (I VD)									rus
C)			 						-										井_
D) Open Squeezed DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL S459-8474 PUMP 9,127 BBLS SLICK H2O & 203,752 LBS 30/50 OTTAWA SAND 9 STAGES DIV. OF OIL, GAS & AMOUNT AND TYPE OF MATERIAL STAGES		INDL	0,0	370	0,	4/4			 		6,670	8,	4/4	0.36	165		복		<u> </u>
DEPTH INTERVAL DEPTH INTERVAL DEPTH INTERVAL PUMP 9,127 BBLS SLICK H2O & 203,752 LBS 30/50 OTTAWA SAND 9 STAGES DIV. OF OIL, GAS & N		- 	 						 								ㅡ		
DEPTH INTERVAL AMOUNT AND TYPE OF MATERIAL FEB 2 8 20 STAGES DIV. OF OIL, GAS & A		RE. TREATME	NT. CEME	NT SQUE	FFZF FT	L		*****	<u> </u>	1							RF		 / F
PUMP 9,127 BBLS SLICK H2O & 203,752 LBS 30/50 OTTAWA SAND 9 STAGES DIV. OF OIL, GAS & A				T						ΔΜ	OLINT AND T	YPE OF MAI	TEDIAL				- 15	.OLI	<u>/ E L</u>
9 STAGES DIV. OF OIL, GAS & N				PUN	1P 9.1	27 BBI	LS SL	ICK I	12O &					WA SA	ND		FE	B 28	2012
											<u> </u>	00,00	<i></i>	117.107		DIV	OF C	U GAS	O LAUA
	9. ENCLOSED AT	TACHMENTS	:	<u></u>		-i												,, (-)	× MIIIA
30. WELL STATUS:											_		_	_		ľ	v. WEL	SIA IUS;	
□ ELECTRICAL/MECHANICAL LOGS □ GEOLOGIC REPORT □ DST REPORT ☑ DIRECTIONAL SURVEY □ PROD □ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION □ CORE ANALYSIS □ OTHER:	=				CEMENT	VERIFICAT	DON:						⊤ ∠	DIREC	TIONAL S	SURVEY		PROD)

31. INITIAL PRODUCTION			
	24	IMITIAL	DECUMENTAL

INTERVAL A (As shown in item #26)

DATE FIRST PRO	DDUCED:	TEST DATE:		HOURS TESTED	D:	TEST PRODUCTION	OIL - BBL:	GAS - MCF:	WATER BBL:	PROD. METHOD:
1/20/2012		1/23/2012	2		24	RATES: →	0	1,515	400	FLOWING
CHOKE SIZE: 18/64	TBG. PRESS. 1,500	CSG. PRESS. 2,000	API GRAVITY	BTU ~ GAS	BTU – GAS GAS/OIL RATIO 24		OIL~BBL:	GAS - MCF: 1,515	WATER - BBL:	INTERVAL STATUS: PROD
-				INT	ERVAL B (As sho	wn in item #26)				
DATE FIRST PRODUCED: TEST DATE:				HOURS TESTED):	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE: TBG. PRESS. CSG. PRESS.			API GRAVITY			24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS:
				INT	ERVAL C (As sho	wn in item #26)		<u> </u>		
DATE FIRST PRO	DDUCED:	TEST DATE:		HOURS TESTED):	TEST PRODUCTION RATES: →	OIL BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS:
				INT	ERVAL D (As sho	wn in item #26)		<u> </u>	<u></u>	1
DATE FIRST PRO	DDUCED:	TEST DATE:		HOURS TESTED):	TEST PRODUCTION RATES: →	OIL BBL;	GAS - MCF:	WATER BBL:	PROD. METHOD:
CHOKE SIZE:	CHOKE SIZE: TBG. PRESS. CSG. PRESS. API GRAVITY				BTU - GAS GAS/OIL RATIO		OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
32. DISPOSITION	OF GAS (Sold,	Used for Fuel, Vo	ented, Etc.)		<u> </u>	1	<u> </u>	.L	<u> </u>	
33. SUMMARY O	F POROUS ZON	IES (Include Aqui	fers):			34	I. FORMATION (L	og) MARKERS:		

Formation	Top Bottom (MD) Descriptions, Contents, etc.		Descriptions, Contents, etc.	Name	Top (Measured Depth
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1,145 1,434 1,828 4,353 6,550

35. ADDITIONAL REMARKS (include plugging procedure)

The first 210'of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey. DQX csg used from surface to 5025'; LTC csg used from 5025' to 8782'.

36.	i hereby cert	ify that the	foregoing and	attached informa	ion is complete	e and correct a	as determined fro	om all available records.
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NAME (PLEASE PRINT) JAIME SCHARNOWSKE

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval

tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

TITLE REGULATORY ANALYST

SIGNATURE Jain Schringust

DATE 2 21 2012

This report must be submitted within 30 days of

- completing or plugging a new well
- · drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

^{*} ITEM 20: Show the number of completions if production is measured separately from two or more formations.

Operation Summary Report

 Well: NBU 922-36J1CS ORANGE
 Spud Date: 10/28/2011

 Project: UTAH-UINTAH
 Site: NBU 922-36O PAD
 Rig Name No: ENSIGN 139/139, PROPETRO 12/12

 Event: DRILLING
 Start Date: 10/9/2011
 End Date: 12/10/2011

				Start Date	3. 10/9/20	711			End Date: 12/10/2011
Active Datum: R Level)	KB @4,9	982.00usft (a	above Mean S	ea	UWI: SV	N/SE/0/9/	S/22/E/36	/0/0/26/PM/S/12	47/E/0/2113/0/0
Date	100	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
10/28/2011	0:00	- 4:00	4.00	DRLSUR	01	В	Р		SKID RIG 10' TO NBU 922-36J1CS (WELL5 OF 5). INSTALL DIVERTOR HEAD AND BLUEY LINE. BUILD DITCH. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PIT PUMP. RIG UP PUMP. PRIME PUMP. INSPECT RIG. HELD PRE-SPUD SAFETY MEETING.
	4:00	- 4:30	0.50	DRLSUR	06	A	P		P/U MOTOR & 12 1/4 BIT SPUD 10/28/2011 @ 04:30
	4:30	- 6:30	2.00	DRLSUR	02	D	Р		DRILL 12.25" HOLE 44'- 210'. (166', 83'/HR) RPM=45, WOB 5-15K. PSI ON/OFF 600/400. UP/DOWN/ ROT 20/20/20 K. DRAG 0 K. CIRC RESERVE W. 8.3# WATER. DRILL DOWN TO 210' W/ 6" COLLARS.
	6:30	- 10:00	3.50	DRLSUR	06	Α	P		POOH, PU, 11" BIT AND DIRECTIONAL TOOLS, TIH T/
		- 18:00	8.00	DRLSUR	02	D	P		DRILL F/210 T/1130 (920' @ 115' PER HR) WOB 20K, PSI ON/OFF 1200/980, RPM 50 UP/DWN/ROT 60/49/56
		- 0:00	6.00	DRLSUR	02	D	P		DRILL F/1130 T/1790 (660' @ 100' PER HR) WOB 20K, PSI ON/OFF 1579/1380, RPM 50 UP/DWN/ROT 70/50/60
10/29/2011	0:00	- 6:30	6.50	DRLSUR	02	D	P		DRILL F/1790 T/2240 (450' @ 69' PER HR) WOB 20K, PSI ON/OFF 1560/1510, RPM 50 UP/DWN/ROT 72/52/65 LOST CIRC, APPLIED AIR @ 1820
	6:30	- 9:30	3.00	DRLSUR	80	В	Z		POOH 10 STDS & WORK ON PUMP RITH
	9:30	- 13:00	3.50	DRLSUR	02	D	P		DRILL F/2240 T/2442 (202'@ 57' PER HR) WOB 20K, PSI ON/OFF 1740/1510, RPM 50 UP/DWN/ROT 88/58/76 TD @ 13:00 (2442')
		- 15:00	2.00	DRLSUR	05	D	P		CIRC. F/CSNG
		- 19:30	4.50	DRLSUR	06	Α	P		LDDS, BHA & DIR. TOOLS
		- 20:30	1.00	DRLSUR	12	Α	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. AND MOVE CSG INTO POSITION TO P/U.
	20:30	- 22:30	2.00	DRLSUR	12	C	P		RUN 55 JTS 8 5/8, 28# CSNG. SHOE SET @ 2442', BAFFLE SET @ 2396'
		- 23:00	0.50	DRLSUR	21	E	Z		WAIT ON CEMENTERS
	23:00	- 0:00	1.00	DRLSUR	12	A	P		HOLD SAFETY MEETING, RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES,. CEMENT HEAD, LOAD PLUG. LAND CSNG @23:30

Well: NBU 922-	36J1CS (RANGE						Spud Date: 10/28/2011				
Project: UTAH-I	tive Datum: RKB @4,982.00usft (above Me vel) Date Time Durat Start-End (hr				922-360	D PAD		Rig Name No: ENSIGN 139/139, PROPETRO 12/12				
Event: DRILLIN	G			Start Date	e: 10/9/20	011		End Date: 12/10/2011				
Active Datum: F	KB @4,9	82.00usft (a	bove Mean Se		· · · · · · · · · · · · · · · · · · ·		S/22/E/36/	22/E/36/0/0/26/PM/S/1247/E/0/2113/0/0				
.evel)		`										
	SI	art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)				
10/30/2011	0:00	- 1:00	1.00	DRLSUR	12	E	Р	PRESSURE TEST LINES TO 2000 PSI. PUMP 140 BBLS OF WATER AHEAD. PUMP 20 BBLS OF 8.3# GEL WATER AHEAD. PUMP (300 SX) 61.35 BBLS OF 15.8# 1.15 YD 5 GAL WT PER SK. PREMIUM CEMENT W/ 2% CALC. DROP PLUG ON FLY. DISPLACE W/ 149.5 BBLS OF H20. NO CIRC THROUGH OUT. FINAL LIFT OF 310 PSI AT 4 BBL/MIN. BUMP PLUG W/780 PSI HELD FOR 5 MIN FLOAT HELD. PUMP (150 SX) 30.64 BBLS OF SAME TAIL CEMENT W/ 4% CALC. DOWN BACKSIDE. SHUT DOWN AND CLEAN TRUCK. NO				
	1:00	- 3:00	2.00	DRLSUR	13	Α	P	CEMENT TO SURFACE. WOC , PUMP (225 SX) 45.96 BBLS 15.8 CMT DOWN BACKSIDE. NO RETURNS TO SURFACE				
	3:00	- 5:00	2.00	DRLSUR	13	Α	Р	WOC , PUMP (225 SX) 45.96 BBLS 15.8 CMT DOWN BACKSIDE. NO RETURNS TO SURFACE RELEASE RIG @ 05:30				
	5:00	- 5:00	0.00	DRLSUR	12	E	P	TOP OUT CMT 11/01/2011				
12/4/2011	12:00	- 13:00	1.00	MIRU	01	С	Р	SKID ON,RURT,				
	13:00	- 14:00	1.00	MIRU	14	Α	P	NUBOP, FUNCTION TEST				
	14:00	- 16:00	2.00	MIRU	09	Α	Р	CUT & SLIP DRLG LINE, STILL CLEANING MUD TANKS				
	16:00	25.00	4.00	PRPSPD	15	Α	P	TEST BOPS,RAM CHOKE ,MANIFOLD,KILLINE,FLOOR VALVES TO 5K,ANN 2.5K,CSG 1500 F/30 MIN,				
	20:00	- 20:30	0.50	PRPSPD	14	В	Р	INSTALL WEARRING				
40/5/0044	20:30	- 0:00	3,50	PRPSPD	06	Α	P	P/U BHA #1,SCRIBE DIR TOOLS,TIH TO 2367				
12/5/2011	0:00 0:30	- 0:30	0.50	PRPSPD	06	Α	P -	TIH TO 286				
	1:30	- 1:30	1.00	DRLPRO	02	F	P	DRILL CEMENT -FE SHOE TRACK TO 2452'				
		- 12:30 - 13:00	11.00	DRLPRO	02	D	Р	SPUD 7.875 HOLE DIR DRILL F/2452 TO 3756 =1504 AVG 136 ,WOB18/20,RPM 38/135,GPM 588,120 STKS,4/8K TORQ,PSI 1350/1700,SLIDE 292' 22%				
		- 0:00	0.50 11.00	DRLPRO DRLPRO	07 02	A D	P P	RIG SERVICE				
12/6/2011	0:00	- 12:00	12.00	DRLPRO	02	D	P	DIR DRILL F/3756 TO 5390 =1634 AVG 148 ,WOB18/20,RPM 38/135,GPM 588,120 STKS,4/8K TORQ,PSI 1500/1900,SLIDE 90' 3%				
								DIR DRILL F/5390 TO 6565=1175 AVG 98 ,WOB18/20,RPM 38/135,GPM 588,120 STKS,7/10K TORQ,PSI 1500/1900,SLIDE 98 8%				
		- 12:30 - 15:30	0.50	DRLPRO		A	P	RIG WATER				
			3.00	DRLPRO	02	D	Р	DIR DRILL F/6565 TO 6822=258 AVG 89 ,WOB18/20,RPM 38/135,GPM 588,120 STKS,7/10K TORQ,PSI 1500/1900,SLIDE 30 8%				
		- 20:00	4.50	DRLPRO	05	G	Р	DISPLACE WATER W/ 11.4 MUD, PACKED OFF & STUCK WORK PIPE FREE, REGAIN CIRC,,MW10.2/34,,LOST 300 BBLS TOTAL				
		- 0:00	4.00	DRLPRO	02	D	P	DIR DRILL F/6822 TÖ 7060=238 AVG 60 ,WOB18/20,RPM 38/135,GPM 588,120 STKS,7/10K TORQ,PSI 1700/2050,SLIDE 3%				
12/7/2011	0:00	- 14:00	14.00	DRLPRO	02	D	Р	DIR DRILL F/ 7060 TO 7740 - 680' = @ 48.5 WOB18/20,RPM 40/124,GPM 539 ,110 STKS,7/10K TORQ,PSI 1700/2050,SLIDE 92' - 13% OF 680'				

DRILLED

Operation Summary Report

Well: NBU 922-36J1CS ORANGE Spud Date: 10/28/2011

Project: UTAH-UINTAH Site: NBU 922-360 PAD Rig Name No: ENSIGN 139/139, PROPETRO 12/12

Event: DRILLING Start Date: 10/9/2011 End Date: 12/10/2011

Active Datum: RKB @4,982.00usft (above Mean Sea

UWI: SW/SE/0/9/S/22/E/36/0/0/26/PM/S/1247/E/0/2113/0/0

_evel)					<u> </u>				
Date		Time lart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation.
	14:00	- 14:30	0.50	DRLPRO	07	Α	P		RIG SERVICE
		- 0:00	9.50	DRLPRO	02	D	Þ	1	DIR DRILL F/ 7740 TO 8195 - 455' = @ 47.8 WOB18/20,RPM 40/112,GPM 491,100 STKS,7/10K TORQ,PSI 1850/2200,SLIDE 57' 8.12%
12/8/2011	0:00	- 9:00	9.00	DRLPRO	02	D	Р] /	DIR DRILL F/ 8195 TO 8644 - 449' = @ 49.8 WOB18/20,RPM 40/112,GPM 491,100 STKS,7/10K TORQ,PSI 1850/2200,SLIDE 15' 3%
	9:00	- 16:30	7.50	DRLPRO	80	В	Р	ı	PULL 5 STANDS & REPLACE BLOWER MOTOR ON TOP DRIVE
	16:30	- 19:30	3.00	DRLPRO	02	D	P	\	DIR DRILL F/ 8644 TO 8805 - 161' = @ 53.6 WOB18/20,RPM 40/112,GPM 491,100 STKS,7/10K TORQ,PSI 1850/2200, - TD WELL @ 8805
	19:30	- 0:00	4.50	DRLPRO	05	Α	P	. (CIRC BTM UP & RAISE MW F/ 11.5 TO 11.8 PPG TO CONTROL GAS
12/9/2011	0:00	- 9:30	9.50	DRLPRO	06	E	P		MPER TRIP TO SHOE - TIGHT SPOT @ 6104 TO 5863
	9:30	- 10:00	0.50	DRLPRO	03	E	P	1	WASH 250' TO BTM
	10:00	- 11:30	1.50	DRLPRO	05	Α	Р	(CIRC BTM UP
	11:30	- 0:00	12.50	DRLPRO	06	Α	P	F	PULL 15 STANDS & PUMP DRY JOB & L.D.DP & BHA
12/10/2011	0:00	- 0:30	0.50	DRLPRO	14	В	Р		PULL WEAR BUSHING
	0:30	- 10:30	10.00	DRLPRO	12	C	Þ		HELD S/M & R/U FRANKS CASING CREW & RUN 88 JTS LT&C I-80 & 120 JTS DQX I-80 & SHOE SET @ 8781 - F/C @ 8739
		- 12:00	1.50	DRLPRO	05	D	Р	(CIRC BTM UP
		- 14:30	2.50	DRLPRO	12	Ė	P	6 4 4 1 1 1 5	SAFETY MEET W/ BJ SER,R/U PRESSURE TEST TO 5K,PUMP 25 BBL FRESH,WATER & ,435 SX LEAD @12.3 2.08 YLD- PLII+8%GEL +4%R-3+2%SMS+25#SK CELLOFLAKE+5#SK KOL-SEAL , F/ TAIL 1060 SKS # 14.3 - YLD 1.31 YLD 50:50+2%GEL+10%SALT+2%R-3 & ,DISPLACE 136 BBLS,FINAL LIFT PSI ,BUMP PLUG 2300, W/ 500 OVER & FLOATS HELD, 25 BBL LEAD CEMENT BACK TO PIT, 1.5 BBLS WATER BACK TO TRUCK
	14:30	- 0:00	9.50	DRLPRO	14	Α	P	\ 1 (WASH OUT STACK & N/D & SET C-22 SLIPS W/ 105K - ROUGH CUT 4.5 CASING & WASH CLEAN OUT MUD TANKS & RELEASED RIG @00:00 ON 12/10/2011

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Weil	NBU 922-36J1CS ORANGE	Wellbore No.	OH	
Well Name	NBU 922-36J1CS	Wellbore Name	NBU 922-36J1CS	
Report No.	1	Report Date	1/9/2012	
Project	UTAH-UINTAH	Site	NBU 922-360 PAD	
Rig Name/No.	ROYAL WELL SERVICE/3	Event	COMPLETION	
Start Date	1/9/2012	End Date		
Spud Date	10/28/2011	Active Datum	RKB @4,982.00usft (above Mean Sea Level)	
UWI	SW/SE/0/9/S/22/E/36/0/0/26/PM/S/1247/E/0/2113	/0/0		

1.3 General

Contractor	CASED HOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	ED GUDAC
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

1.5 Summary

Fluid Type		Fluid Density	Gross Interval	5,459.0 (usft)-8,474.0 (usft	Start Date/Time	1/16/2012 12:00AM
Surface Press	2	Estimate Res Press	No. of intervals	32	End Date/Time	1/16/2012 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	210	Net Perforation Interval	56.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.75 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

2 Intervals

2.1 Perforated Interval

Date Formation/ CCL@ (usft)	CCL-T MD Top S (usft)	(usft)	Shot Density (shot/ft)	Misfires/ Diamete Carr Type /C	anterior en en esta de la libra de la Esta de Sala de La compresa de la Region de la Region de la Region de la	esc /Charge Charge Reason Misrun facturer Weight (gram)
1/16/2012 WASATCH/	5,459.0	5,462.0	3.00	0.360 EXP/	3.375 90.00	23.00 PRODUCTIO
12:00AM						N

2.1 Perforated Interval (Continued)

Date	Formation/	CCL@	CCL-T	MD Top		Shot	Misfires/	Diamete	Carr Type /Carr Manuf	Carr	Phasing	Charge Desc /Charge	Charge	Reason	Misrun
	Reservoir	(usft)	S (usft)	(usft)	(usft)	Density (shot/ft)	Add. Shot	r (in)		Size	(9)	Manufacturer	Weight		
1/16/2012	WASATCH/	Rose Constant	Lusity	5,514.0	5,517.0			0.360	EXP/	(in) 3.375	120.00		(gram) 23.00	PRODUCTIO	450 51 H 5 4 8
12:00AM														N	
1/16/2012 12:00AM	WASATCH/		:	6,022.0	6,024.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	
	WASATCH/			6.072.0	6.075.0	3.00		0.360	FXP/	3.375	90.00	11 10 11 Mar Maria da	23.00	N PRODUCTIO	
12:00AM	11.10.110111			0,012.0	0,0,0.0	0.00		0.000		0.070	00.00			.N	
	WASATCH/			6,190.0	6,193.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM	MEGAVERDE			0.070.0	0.070.0	4.00								N	
1/16/2012 12:00AM	MESA VERDE/			6,670.0	6,673.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESA VERDE/			6,720.0	6,723.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM								:						N	
1/16/2012 12:00AM	MESA VERDE/			7,021.0	7,023.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
	MESA VERDE/			7.120.0	7,122.0	4.00		0.360	FXP/	3.375	90.00			N PRODUCTIO	
12:00AM				.,	.,			1.550		0.070	00.00			N	
1	MESA VERDE/			7,150.0	7,152.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
12:00AM	MESA VERDE/		:	7.224.0	7,226.0	4.00		0.360	EVDI		00.00			N	
12:00AM	WESA VERDE			7,224.0	7,226.0	4.00		0.360	EAP /	3.375	90.00			PRODUCTIO N	
1/16/2012	MESA VERDE/			7,232.0	7,233.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
12:00AM	· · <u>······</u>			نسب ديسان					<u> </u>				Market Control of the Control	N	
1/16/2012 12:00AM	MESA VERDE/			7,286.0	7,287.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
the state of the s	MESA VERDE/			7,304.0	7,305.0	4.00		0.360	EXP/	3.375	90.00		man and the second	PRODUCTIO	
12:00AM			20 000 0000 0000											N	
	MESA VERDE/			7,346.0	7,347.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
12:00AM	MESA VERDE/		:	7,496.0	7,497.0	4.00		0.360	EVD/	3.375	90.00			N PRODUCTIO	2
12:00AM	MILOA VLINDE			7,430.0	ı, 181 .∪	4.00		0,000	LAI /	3,373	9U.UU			PRODUCTIO N	
	MESA VERDE/			7,510.0	7,511.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
12:00AM	·								·	<u> </u>				N	
1/16/2012 12:00AM	MESA VERDE/			7,596.0	7,597.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
	MESA VERDE/			7,642.0	7,643.0	4.00		0.360	EXP/	3.375	90.00			N PRODUCTIO	
12:00AM														N	
	MESA VERDE/			7,662.0	7,663.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
12:00AM	MESA VERDE/			7,692.0	7.693.0	4.00		0.360	EVDI	2 275	00.00		e er comment and a	N	
1/16/2012 12:00AM	MIESA VERDE/			7,082.U	บ.ธชอ, เ	4.00		0.360	EAP/	3.375	90.00			PRODUCTIO N	
1 10 17 17 1	MESA VERDE/			7,822.0	7,825.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO	
12:00AM												i i	!!	N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
1/16/2012 12:00AM	MESA VERDE/			7,928.0	7,931.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,000.0	8,002.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,044.0	8,046.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,110.0	8,111.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,185.0	8,186.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,240.0	8,241.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,246.0	8,247.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,263.0	8,265.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,453.0	8,454.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
1/16/2012 12:00AM	MESA VERDE/			8,473.0	8,474.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



Well: NBU 922-	36J1CS ORANGE					Spud Date: 10/28	3/2011		
Project: UTAH-I	JINTAH		Site: NB	U 922-360	PAD		Rig Name No: ROYAL WELL SERVICE/3		
Event: COMPLI	TION		Start Da	te: 1/9/201	2		End Date:		
Active Datum: F Level)	RKB @4,982.00usft (al	oove Mean Se	ea	UWI: S\	N/SE/0/9/S/2	E/36/0/0/26/PM/S/1247	/E/0/2113/0/0		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub P	J MD From (usft)	Operation		
10/28/2011	-								
1/9/2012	11:00 - 12:30	1.50	COMP	33	Ė		FILL SURFACE CSG. MIRU B&C QUICK TEST.		
							PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 15		
							PSI.		
							PSI TEST T/ 3500 PSI, HELD FOR 15 MIN LOST 41		
							PSI.		
							1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 50 PSI.		
							NO COMMUNICATION OR MIGRATION WITH SURFACE CSG		

Ρ

Р

BLEED OFF PSI. MOVE T/ NEXT WELL.

DESIGN. POOH. SWIFW

LINES / SET POPOFF

PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF AS PER PERF

HSM, PRE JOB REVIEW, PRESSURE TEST SURFACE

SWIFW

1/13/2012

1/16/2012

12:00 - 14:00

7:00 - 8:00

2.00

1.00

COMP

COMP

37

48

				U	S ROC	KIES R	EGION	
				Opera	tion S	umma	ıry Report	
Well: NBU 922-	36J1CS ORANGE						Spud Date: 10/	/28/2011
Project: UTAH-		• • • • • • • • • • • • • • • • • • • •	Site: NBI	J 922-36C	PAD		- Space Date: 10/	Rig Name No: ROYAL WELL SERVICE/3
Event: COMPLI	ETION			e: 1/9/201				End Date:
Active Datum: F	RKB @4,982.00usft (ab	ove Mean Se				S/22/E/3	5/0/0/26/P M /S/12	
Level)					,			
Date	Time Start End	Duration	Phase	Code	Sub	P/U	MD From	Operation
	Start-End 8:00 - 18:30	(hr) 10.50	COMP	36	Code B	P	MD From (usft)	PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D FRAC STG #1] WHP=1,450#, BRK DN PERFS=4,208#, @=4.8 BPM, INJ RT=37.7, INJ PSI=5,862#, INITIAL ISIP=2,358#, INITIAL FG=.72, FINAL ISIP=3,146#, FINAL FG=.82, AVERAGE RATE=45.1, AVERAGE PRESSURE=6,133#, MAX RATE=45.1, AVERAGE PRESSURE=6,133#, MAX RATE=50.2, MAX PRESSURE=6,550#, NET PRESSURE INCREASE=788#, 14/24 60% CALC PERFS OPEN. X OVER TO WRE LINE PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,216*, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #2] WHP=1,670#, BRK DN PERFS=3,924#, @=4.7 BPM, INJ RT=46.9, INJ PSI=5,993#, INITIAL ISIP=2,719#, INITIAL FG=.77, FINAL ISIP=2,719#, FINAL FG=.77, AVERAGE RATE=49.7, AVERAGE PRESSURE=4,974#, MAX RATE=51.4, MAX PRESSURE=6,246#, NET PRESSURE INCREASE=77#, 18/24 74% CALC PERFS OPEN. X OVER TO WRE LINE PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,961*, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #3] WHP=2,350#, BRK DN PERFS=4,430#, @=4.7 BPM, INJ RT=47.5, INJ PSI=5,285#, INITIAL ISIP=2,732#, INITIAL FG=.79, FINAL ISIP=2,719#, FINAL FG=.77, AVERAGE RATE=49.7, AVERAGE PRESSURE=5,261#, MAX RATE=51.1, MAX PRESSURE=6,349#, NET PRESSURE INCREASE=-302#, 23/24 95% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,723*, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #3] WHP=2,350#, BRK DN PERFS=2,285#, WITTAL ISIP=1,330#, INITIAL FG=.68, FINAL ISIP=2,719#, FINAL FG=.77, AVERAGE RATE=51.7, MAX PRESSURE=6,349#, NET PRESSURE INCREASE=-302#, 23/24 95% CALC PERFS OPEN. X OVER TO FRAC CREW FRAC STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,723*, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER

Vell: NBU 922-3	6J1CS ORANGE						Spud Date: 10/2	28/2011		
Project: UTAH-L	JINTAH		Site: NBU	J 922-360	PAD			Rig Name No: ROYAL WELL SERVICE/3		
ent: COMPLE	ETION		Start Date	e: 1/9/201	12			End Date:		
Active Datum: R Level)	KB @4,982.00usft (at	ove Mean Se	····	UWI: SW/SE/0/9/S/22/E/36/0/0/26/PM/S/1247/E/0/2113/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
1/17/2012			COMP	48 36	100 mm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	P P		PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,377", PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN. HSM, SLIP / TRIPS / FALLS FRAC STG #5] WHP=1,380#, BRK DN PERFS=3,261#, @=3.9 BPM, INJ RT=52.5, INJ PSI=5,218#, INITIAL ISIP=1,822#, INITIAL FG=.69, FINAL ISIP=2,476#, FINAL FG=.78, AVERAGE RATE=50.5, AVERAGE PRESSURE=4,253#, MAX RATE=51.3, MAX PRESSURE=5,365#, NET PRESSURE INCREASE=654#, 20/24 83% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,182', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #6] WHP=2,000#, BRK DN PERFS=4,919#, @=4.5 BPM, INJ RT=48.3, INJ PSI=5,978#, INITIAL ISIP=2,507#, INITIAL FG=.79, FINAL ISIP=2,407#, FINAL FG=.78, AVERAGE RATE=48.7, AVERAGE PRESSURE=4,963#, MAX RATE=51.1, MAX PRESSURE=6,451#, NET PRESSURE INCREASE=-100#, 17/24 72% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,753", PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS		
			·					PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #7] WHP=480#, BRK DN PERFS=1,996#, @=4.2 BPM, INJ RT=52.6, INJ PSI=4,970#, INITIAL ISIP=1,182#, INITIAL FG=.62, FINAL ISIP=2,140#, FINAL FG=.76, AVERAGE RATE=52.8, AVERAGE PRESSURE=4,342#, MAX RATE=53.5, MAX PRESSURE=4,342#, MET PRESSURE INCREASE=958#, 18/21 86% CALC PERFS OPEN. X OVER TO WIRE LINE		
1/18/2012	7:00 - 7:15	0.25	COMP	48		P		PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,223', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN HSM, R/D		

						(IES RE	SION y Report			
Moli NPH 022 2	6J1CS ORANGE									
Project: UTAH-U			Site: NRI	J 922-36C) DAD		Spud Date: 10/28/2011	D. #0.870		
Event: COMPLE		······································	-			T		Rig Name No: ROYAL WELL SERVICE/3		
	KB @4,982.00usft (at	Nova Maan Ca		e: 1/9/201		S/20/E/26	End Date: /0/26/PM/S/1247/E/0/2113/0/0			
Level)	KB @4,902.000sit (at	ove wean se	a	OVVI. St	W 3E/0/9/	3/22/E/30	/0/26/PIW/S/1247/E/0/2113/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)			
	7:15 - 7:15	0.00	COMP	36	В	Р	FRAC STG #8] WHP=360#, BRK I @=3.7 BPM, INJ RT=51.5, INJ PS ISIP=1,132#, INITIAL FG=.62, FIN FINAL FG=.70, AVERAGE RATE= PRESSURE=4,342#, MAX RATE= PRESSURE=4,788#, NET PRESS INCREASE=440#, 18/21 78% CA OVER TO WIRE LINE PERF STG #9] P/U RIH W/ HALIB	I=4,495#, INITIAL AL ISIP=1,581#, 52.8, AVERAGE 53.5, MAX URE LC PERFS OPEN. X JRTON 8K CBP &		
							PERF GUN, SET CBP @=5,547, I USING 3-1/8 EXPEND, 23 GRM, 0 PERSAY IN PROCEDURE, X OVE FRAC STG #9] WHP=280#, BRK I @=3.4 BPM, INJ RT=52.7, INJ PS ISIP=1,031#, INITIAL FG=.63, FIN FINAL FG=.69, AVERAGE RATE= PRESSURE=3,728#, MAX RATE= PRESSURE=4,574#, NET PRESS INCREASE=366#, 19/21 92% CA OVER TO WIRE LINE	PERF MESAVERDE .36" HOLE. AS IR TO FRAC CREW ON PERFS=1,938#, I=4,271#, INITIAL AL ISIP=1,397#, 52.6, AVERAGE 53.3, MAX URE		
							P/U RIH W/ HALIBURTON 8K CBF @=5,409' TOTAL FLUID PUMP'D=9,127 BBI TOTAL SAND PUMP'D=203,752#			
1/19/2012	12:00 - 13:00	1.00	COMP	30		P	ROAD RIG FROM BONANZA 1023	3-2E.		
	13:00 - 18:00	5.00	COMP	30		Р	NÓ PRESSURE ON WELL. MIRU. & RIH W/ THE FOLLOWING:	NDWH. NUBOP. P/U		
							171 JTS 2-3/8" NEW N-80 4.7# TB XN 1.34' FLOAT VALVE .80' POBS 1.60' MILL .39' T/U @ 5409' ON KILL PLUG. L/D 1 5389' OVERNIGHT. R/U PUMP LII	JT. LEAVE EOT @		
1/20/2012	7:00 - 7:15	0.25	MAINT	48		Р	BOP TEST & D/O IN THE AM. SAFETY = JSA			

Well: NBU 922-3	6J1CS ORANGE			<u> </u>	<u> </u>	3.32	Spud Date: 10	/28/2011		
Project: UTAH-U	INTAH		Site: NBU	J 922-36C	PAD			Rig Name No: ROYAL WELL SERVICE/3		
event: COMPLE	TION			e: 1/9/201				End Date:		
	KB @4,982.00usft (a	bove Mean Se				/S/22/E/36	/0/0/26/PM/S/12	47/E/0/2113/0/0		
.evel)										
Date	Time Start-End	Duration	Phase	Code	Sub	P/U	MD From	Operation		
	7:15 - 18:00	(hr) 10.75	MAINT	30	Code	P	(usft)	0# ON WELL. R/U PUMP & TEST BOP'S GOOD @ 3000#. P/U SWIVEL. BREAK CIRC. T/U ON KILL CBP @ 5409'. BEGIN D/O AS FOLLOWS:		
								CBP #1) DRLG OUT BAKER 8K CBP @ 5409' IN 6 MIN. 150 LBS DIFF. PSI. RIH, TAG SND @ 5491'. C/O 56' OF SND. FCP = 0 PSI.		
								CBP #2) DRLG OUT BAKER 8K CBP @ 5547" IN 6 MIN. 0 LBS DIFF. PSI. RIH, TAG SND @ 6191 '. C/O 32' OF SND. FCP = 0 PSI.		
								CBP #3) DRLG OUT BAKER 8K CBP @ 6223' IN 4 MIN. 0 LBS DIFF. PSI. RIH, TAG SND @ 6715'. C/O 38' OF SND. FCP = 0 PSI.		
								CBP #4) DRLG OUT BAKER 8K CBP @ 6753' IN 4 MIN. 200 LBS DIFF. PSI. RIH, TAG SND @ 7156'. C/O 26' OF SND. FCP = 35 PSI.		
								CBP #5) DRLG OUT BAKER 8K CBP @ 7182' IN 6 MIN. 100 LBS DIFF. PSI. RIH, TAG SND @ 7343'. C/O 34' OF SND. FCP = 70 PSI.		
								CBP #6) DRLG OUT BAKER 8K CBP @ 7377' IN 9 MIN. 300 LBS DIFF. PSI. RIH, TAG SND @ 7692'. C/O 31' OF SND. FCP = 100 PSI.		
								CBP #7) DRLG OUT BAKER 8K CBP @ 7723' IN 4 MIN. 200 LBS DIFF. PSI. RIH, TAG SND @7922 '. C/O 39' OF SND. FCP = 170 PSI.		
								CBP #8) DRLG OUT BAKER 8K CBP @ 7961' IN 7 MIN. 300 LBS DIFF. PSI. RIH, TAG SND @ 8187'. C/O 29' OF SND. FCP = 285 PSI.		
								CBP #9) DRLG OUT BAKER 8K CBP @ 8216' IN 7 MIN. 0 LBS DIFF. PSI. RIH, TAG SND @ 8305'. C/O TO 8578' W/ 270 JTS TBNG + BHA. FCP = 330 PSI.		
								L/D 19 JTS TBNG. LAND WELL AS FOLLOWS:		
								KB=14 HANGER=.83' 251 JTS. 2-3/8" N-80 4.7# TBNG =7957.06' XN = 1.34' POBS = 1.68' EOT @ 7974.91'		
								NDBOP. NUWH. TEST FLOW LINES (GOOD) @ 2500 PSI. DROP BALL & PUMP OFF BIT. RDMO. WELL TURNED OVER TO FB CREW @ 1530 W/ CP= 1400#. TP= 850#. TWLTR = 8027 BBLS		

2/17/2012

3:40:19PM

US ROCKIES REGION Operation Summary Report Well: NBU 922-36J1CS ORANGE Spud Date: 10/28/2011 Project: UTAH-UINTAH Site: NBU 922-360 PAD Rig Name No: ROYAL WELL SERVICE/3 **Event: COMPLETION** Start Date: 1/9/2012 Active Datum: RKB @4,982.00usft (above Mean Sea UWI: SW/SE/0/9/S/22/E/36/0/0/26/PM/S/1247/E/0/2113/0/0 Level) Date Time Duration Phase Code Sub P/U MD From Operation Start-End (hr) Code (usft) 7:00 1/23/2012 PROD 50 WELL IP'D ON 1/23/12 - 1515 MCFD, 0 BOPD, 400 BWPD, CP 2000 #, FTP 1500#, CK 18/64", LP 68#, 24



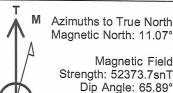
Project: Uintah County, UT UTM12

Site: NBU 922-360 PAD Well: NBU 922-36J1CS

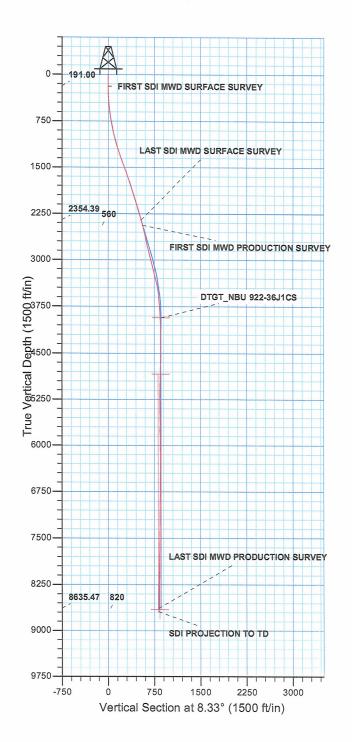
Wellbore: OH Design: OH

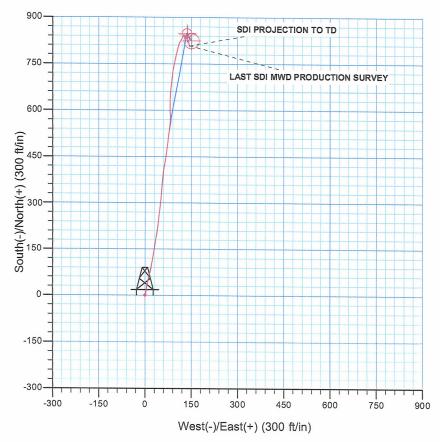


WELL DETAILS: NBU 922-36J1CS GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) +E/-W 0.00 Northing 14526021.20 Easting 2092590.65 Latittude 39° 59' 19.295 N Longitude 109° 23' 8.639 W









PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866

Zone: Zone 12N (114 W to 108 W) Location: SECTION 36 T9S R22E System Datum: Mean Sea Level

Design: OH (NBU 922-36J1CS/OH)

Created By: RobertScott Date: 9:55, January 03 2012



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

OH

Design: OH

Standard Survey Report

03 January, 2012





SDI

Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12 NBU 922-360 PAD

Well:

NBU 922-36J1CS

Wellbore: Design:

OH ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

Minimum Curvature

EDM5000-RobertS-Local

Project

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Geo Datum:

Map Zone:

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

NBU 922-360 PAD, SECTION 36 T9S R22E

Site Position: From:

Lat/Long

Northing: Easting:

14,526,021.20 usft 2,092,590,64 usft

Latitude:

39° 59' 19.295 N

Position Uncertainty:

Slot Radius:

Longitude:

109° 23' 8.639 W

0.00 ft

13.200 in

Grid Convergence:

1.04°

Well

NBU 922-36J1CS, 1247 FSL 2133 FEL

Well Position +N/-S

+E/-W

0.00 ft 0.00 ft Northing:

14,526,021.20 usft

Latitude:

39° 59' 19.295 N

Position Uncertainty

Easting:

2,092,590.64 usft

Longitude:

109° 23' 8.639 W

0.00 ft Wellhead Elevation: ft Ground Level:

4,968.00 ft

Wellbore

OH

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

2011/02/07

0.00

11.07

65.89

52,374

Design

Audit Notes:

Version:

1.0

ОН

Phase:

ACTUAL

Tie On Depth:

0.00

0.00

Vertical Section:

Depth From (TVD)

(ft)

8,805.00 Survey #2 SDI MWD PRODUCTION (OH)

+N/-S (ft)

0.00

+E/-W

Direction (°)

8,33

Survey Program

2012/01/03

From (ft)

To (ft)

Survey (Wellbore)

Tool Name

Description

10.00 2.522.00 2,431.00 Survey #1 SDI MWD SURFACE (OH)

MWD SDI MWD SDI MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
191.00	0.53	67.32	191.00	0.32	0.77	0.43	0.29	0.29	0.00
FIRST SDI N	IWD SURFACE S	SURVEY							
277.00	1.41	25.31	276.99	1.43	1.59	1.65	1.25	1.02	-48.85
361.00	3.08	8.35	360.92	4.60	2.36	4.89	2.12	1.99	-20.19
451.00	4.62	7.85	450.71	10.58	3.21	10.94	1,71	1.71	-0.56
541.00	6.35	7.31	540.30	19.11	4.34	19.54	1.92	1.92	-0.60
631.00	8.06	9.67	629.58	30.27	6.03	30.82	1,93	1.90	2.62
721.00	9.46	12.97	718.53	43.70	8.75	44.50	1.65	1.56	3.67



SDI Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well; NBU 922-360 PAD NBU 922-36J1CS

Wellbore: Design: OH OH Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

True

Minimum Curvature

EDM5000-RobertS-Local

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
811.00	11.16	14.05	807.08	59.35	12.52	60.54	1.90	1.89	1.20
901.00	12.75	13.27	895.12	77.47	16.92	79.10	1.78	1.77	-0.87
991.00	13.78	10.63	982.72	97.67	21.18	99.71	1.33	1.14	-2.93
1,081.00	15.25	9.49	1,069.84	119.88	25.10	122.26	1.66	1.63	-1.27
1,171.00	16.60	8.41	1,156.39	144.28	28.94	146.95	1.54	1,50	-1.20
1,261.00	18.14	9.31	1,242.28	170.82	33.08	173.81	1.74	1.71	1.00
1,351.00	19.57	9.14	1,327,45	199.53	37.74	202.89	1.59	1.59	-0.19
1,441.00	19.62	5.76	1,412.24	229.45	41.66	233.06	1.26	0.06	-3.76
1,531.00	19.03	7.51	1,497.17	259.03	45,09	262.83	0.92	-0.66	1,94
1,621.00	19.18	6,47	1,582.21	288.27	48.67	292.28	0.41	0.17	-1.16
1,711.00	19.07	5.05	1,667.25	317.60	51.63	321.73	0.53	-0.12	-1.58
1,801.00	17.95	5.18	1,752.59	346.06	54.18	350.26	1.25	-1,24	0.44
1,891.00	18.08	5.23	1,838.18	373.78	56.70	378.05	0.15		0.14
1,981,00	17.70	6.84	1,923.83	401.27	59.61	405.67		0.14	0.06
2,071.00	17.21	10.85	2,009.68	427.93	63.74	432.65	0.69	-0.42	1.79
2,161.00	17.45	8.52	2,005.60	454.35	68.25	452.65 459,45	1.44	-0.54	4.46
2,101100	,,,,,	0.02	2,000.00	707.00	06.23	458,45	0.82	0.27	-2.59
2,251.00	16.63	7.34	2,181.65	480.47	71.89	485.82	0.99	-0.91	-1.31
2,341.00	16.19	5.05	2,267.98	505.74	74.64	511.22	0.87	-0.49	-2.54
2,431.00	16.29	8.95	2,354.39	530,71	77.71	536.37	1.22	0.11	4.33
LAST SDI M	WD SURFACE SI	JRVEY							
2,522.00	13.63	6,31	2,442.30	553.98	88.08	559.85	3.02	-2.92	-2.90
	WD PRODUCTIO								
2,612.00	13.06	359.50	2,529.88	574.69	81.95	580,50	1.86	-0.63	-7.57
2,703.00	12.59	355.90	2,618.61	594.87	81.15	600.35	1.02	-0.52	-3,96
2,794.00	12.72	0.82	2,707.40	614.78	80.59	619.97	1.19	0.14	5.41
2,884.00	13.72	1.74	2,795.01	635.35	81.05	640.39	1.14	1.11	1.02
2,975.00	15.52	5.74	2,883.07	658.25	82.60	663.28	2.27	1.98	4.40
3,065.00	15.47	6.45	2,969.80	682.16	85.15	687.30	0.22	-0.06	0.79
3,156.00	13.45	6.66	3,057.91	704.74	87.74	710.01	2.22	-2.22	0,23
3,246.00	13.45	7.71	3,145.44	725.50	90.36	730.94	0.27	0.00	1.17
3,336.00	14.35	12.24	3,232.81	746.78	94.13	752.54	1.57	1.00	5.03
3,427.00	13.54	11.84	3,321.12	768.22	98.71	774.42	0.90	-0.89	-0.44
3,518.00	11.87	14.92	3,409.89	787.69	103.30	794.35	1.98	-1.84	3.38
3,608.00	9.27	15.26	3,498.36	803.64	107.59	810.74	2.89	-2.89	0.38
3,699.00	6.52	22.44	3,588.49	815.48	111.50	823.03	3.20	-3.02	7.89
3,789.00	5.99	27.30	3,677.95	824.38	115.60	832.43	0.83	-0.59	5.40
3,880.00	4.10	29.20	3,768.60	831.44	119,37	839.96	2.08	-2.08	2.09
3,970.00	2.60	29.57	3,858.44	836.02	121.94	844.87	1.67	-1.67	0.41
-,	2.27	29.50	3,949.36	839.39	123.85	848.47	0.36	-0.36	-0.08
•					125.45		1,12		-0.08 14.99
4,061.00	1.35	42 99	4 039 31						
4,061.00 4,151.00	1.35 1.10	42.99 76.81	4,039.31 4,130.29	841.71 842 70		851.01 852.21		-1.02 -0.27	
4,061.00	1.35 1.10 0.81	42,99 76.81 84.82	4,039.31 4,130.29 4,220.28	842.70 842.95	127.03 128.51	852.21 852.68	0.83 0.35	-0.27 -0.32	37,16 8.90



SDI Survey Report



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 922-360 PAD NBU 922-36J1CS

Wellbore: Design: OH

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

True

Minimum Curvature

EDM5000-RobertS-Local

ırvey		o Maria Barrio de		ring a service of the Problem on the s	er i de er stande. Historia	ranner a salar da salar Magazia a Santa	en e	responsible in the first state of the state	
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4 542 00	Adirei Sarella de Copada	en Taribba Provincia	90,044,4570,410,065	dan gilik Makajina Pina	Www.Pignamen.jp.	ranavi sarasi		d vitiantiki entiki	A STANSON AND AND AND AND AND AND AND AND AND AN
4,513.00	0.17	247.09	4,401.28	843.23	128.25	852.91	0.46	-0.39	-46.68
4,604.00	0.07	169.17	4,492.28	843.12	128.13	852,79	0.19	-0.11	-85.63
4,694.00	0.59	149.96	4,582.28	842.66	128.38	852.37	0.58	0.58	-21.34
4,785.00	0.90	158.10	4,673.27	841.60	128,88	851.39	0.36	0.34	8.95
4,875.00	1.35	178.13	4,763.25	839.88	129.18	849.73	0.66	0.50	22.26
4,966.00	1.15	190.28	4,854.23	837.91	129.05	847.77	0.36	-0.22	13.35
5,057.00	1.32	178.99	4,945.21	835.96	128.90	845.82	0.33	0.19	-12.41
5,147.00	1.09	194.71	5,035.19	834.10	128.70	843.95	0.45	-0.26	17.47
5,238.00	1.74	192.06	5,126.16	831.91	128.20	841.71	0.72	0.71	-2.91
5,328.00	0.37	303.14	5,216.15	830.73	127.67	840.47	2.12	-1.52	123.42
5,419.00	1.60	47.23	5,307.13	831.76	128,35	841.58	1.90	1 25	444.29
5,509.00	1.07	61.69	5,397.11	833.01	130.02	843.06	0.69	1.35	114.38
5,600.00	1.17	78.13	5,488.09	833.60	130.62			-0.59	16.07
5,691.00	1.03	78.02	5,579.08	833,96	133.38	843.88	0.37	0.11	18.07
5,781.00	1.12	112.10	5,669.06	833.80	134.99	844.49 844.56	0.15 0.71	-0.15 0.10	-0.12 37.87
			0,000.00	000.00	104.00	044.00	0.71	0.10	37.67
5,872.00	0.43	238,11	5,760.06	833.29	135.52	844.13	1.56	-0.76	138.47
5,962.00	1.21	317.74	5,850.05	833.81	134.60	844.51	1.34	0.87	88,48
6,053.00	1.27	317.56	5,941.03	835.27	133.27	845.76	0.07	0.07	-0.20
6,143.00	1.53	1.52	6,031.00	837.20	132.63	847.59	1.19	0.29	48.84
6,234.00	1.14	0.01	6,121.98	839.32	132.66	849.69	0.43	-0.43	-1.66
6,324.00	1.67	42.00	6,211.95	841.19	133,54	851.67	1.25	0.59	46.66
6,415.00	1.49	86.81	6,302.92	842.24	135.61	853.00	1.34	-0.20	49.24
6,505.00	1.76	113.27	6,392.89	841.76	138.05	852.88	0.88	0.30	29.40
6,596.00	1.92	127.83	6,483.84	840,28	140.53	851.77	0.54	0.18	16.00
6,686.00	1.42	144.87	6,573.80	838.44	142.37	850.22	0.78	-0.56	18.93
6,777.00	0.67	205.50	6,664.79	837.04	142.79	848.89	1.36	0.00	00.00
6,867.00	0.84	184.16	6,754.78	835.90	142.79			-0.82	66.63
6,958.00	0.86	192.73	6,845.77	834.57	142.31	847.73 846.39	0.36	0.19	-23.71
7,048.00	0.94	168.82	6,935.76	833.19	142.31	845.02	0.14	0.02	9.42
7,139.00	0.09	32.76	7,026.76	832.52	142.49	844.38	0.42 1.11	0.09 - 0.93	-26.57 -149.52
7 000 00	0.05	04.40	7.440.70						
7,229.00	0.25	94.46	7,116.76	832.56	142.72	844.46	0.25	0.18	68.56
7,320.00	1.07	155.73	7,207.75	831.77	143.27	843.75	1.07	0.90	67.33
7,410.00	1.58	174.35	7,297.72	829.77	143.74	841.84	0.73	0.57	20.69
7,500.00	0.97	210.04	7,387.70	827.88	143.48	839.93	1.08	-0.68	39.66
7,591.00	1.23	232.98	7,478.69	826.62	142.31	838.52	0.56	0.29	25.21
7,682.00	1.32	224.19	7,569.66	825.28	140.80	836.97	0.24	0.10	-9.66
7,772.00	1.06	223.22	7,659.65	823.93	139.51	835.45	0.29	-0.29	-1.08
7,862.00	0.26	171.10	7,749.64	823.12	138.97	834.57	1.03	-0.89	-57.91
7,953.00	0.47	110.49	7,840.64	822.79	139.35	834.30	0.45	0.23	-66.60
8,043.00	1.38	149.95	7,930.63	821.72	140.24	833.37	1.18	1.01	43.84
8,134.00	1.79	154.74	8,021.59	819.49	141.40	831,33	0.47	0.45	5.26
8,224.00	1.32	175.06	8,111.56	817.18	142.09	829.15	0.47		
8,315.00	1.08	184.91	8,202.54	815.29	142.09	827.27	0.35	-0.52 -0.26	22.58
8,405.00	0.97	170.05	8,292.52	813.69	142.16	827.27 825.70	0.35	-0.26 -0.12	10.82 -16.51



SDI

Survey Report



0.00

Company:

Kerr McGee Oil and Gas Onshore LP

0.62

116.87

Project: Site: Well:

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

Wellbore: Design:

ОН ОН

8.805.00

SDI PROJECTION TO TD

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Database:

Survey Calculation Method:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

True

Minimum Curvature EDM5000-RobertS-Local

0.00

0.00

Survey Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (*/100ft)
8,496.00	1.28	169.52	8,383.51	811.93	142.48	824.01	0.34	0.34	-0.58
8,586.00	1.14	172.86	8,473.49	810.06	142.77	822.19	0.17	-0.16	3.71
8,677.00	0.88	164.95	8,564.47	808.48	143.07	820.68	0.32	-0.29	-8.69
8,748.00	0.62	116.87	8,635.47	807.78	143.55	820.06	0.92	-0.37	-67.72
LAST SDI MY	WD PRODUCTIO	N SURVEY							

144.10

819.86

807.50

8,692.46

Design Annotations				
Measured Depth	Vertical Depth	Local Coord		장마리 전환에 눈이 돌아가는 맛있었다면 사람들은 얼마를 받았다.
(ft)	(ft)	+N/-S	+E/-W	네는 시민들의 문학으로 하면 무겁니다. 경우 얼마나 주는 이 나를 받는 것이다.
		(n)	(ft)	Comment
191.00	191.00	0.32	0.77	FIRST SDI MWD SURFACE SURVEY
2,431.00	2,354.39	530.71	77.71	LAST SDI MWD SURFACE SURVEY
2,522.00	2,442.30	553.98	80.88	FIRST SDI MWD PRODUCTION SURVEY
8,748.00	8,635.47	807.78	143.55	LAST SDI MWD PRODUCTION SURVEY
8,805.00	8,692.46	807.50	144.10	SDI PROJECTION TO TD
h				

Checked By: Approved By:	Date:



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-360 PAD NBU 922-36J1CS

ОН

Design: OH

Survey Report - Geographic

03 January, 2012





SDI Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 922-360 PAD NBU 922-36J1CS

Wellbore: Design:

ОН ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

Minimum Curvature EDM5000-RobertS-Local

Project

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Geo Datum:

Map Zone:

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

Well

NBU 922-360 PAD, SECTION 36 T9S R22E

Site Position: From:

Lat/Long

Northing: Easting:

14,526,021,20 usft 2,092,590.64 usft

Latitude: Longitude:

39° 59' 19.295 N 109° 23' 8.639 W

Position Uncertainty:

0.00 ft

Slot Radius:

13.200 in

Grid Convergence:

1.04 °

Well Position

NBU 922-36J1CS, 1247 FSL 2133 FEL

+N/-S +E/-W

0.00 ft 0.00 ft

Northing: Easting:

14,526,021.20 usft 2,092,590.64 usft Latitude: Longitude:

39° 59' 19.295 N 109° 23' 8.639 W

Position Uncertainty

0.00 ft

Wellhead Elevation:

ft

Ground Level:

4,968.00 ft

Wellbore

OH

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

2011/02/07

11.07

65.89

52.374

Design

Audit Notes:

Version:

1.0

OH

Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD)

0.00

+N/-S

+E/-W

Direction

(ft)

(ft) 0.00 0.00

(°)

8.33

Survey Program

Date 2012/01/03

From

То (ft)

Survey (Wellbore)

Tool Name

Description

10.00 2.522.00

2,431.00 Survey #1 SDI MWD SURFACE (OH) 8,805.00 Survey #2 SDI MWD PRODUCTION (OH) MWD SDI MWD SDI

MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,526,021.20	2,092,590,64	39° 59′ 19.295 N	109° 23' 8.639 W
10.00	0.00	0.00	10.00	0.00	0.00	14,526,021.20	2,092,590.64	39° 59' 19.295 N	109° 23' 8.639 W
191.00	0.53	67.32	191.00	0.32	0.77	14,526,021.54	2,092,591.41	39° 59' 19.298 N	109° 23' 8,629 W
FIRST SI	DI MWD SURI	ACE SURVE	Y						
277.00	1.41	25.31	276.99	1.43	1.59	14,526,022.66	2,092,592.21	39° 59' 19,309 N	109° 23' 8.618 W
361.00	3.08	8.35	360.92	4.60	2.36	14,526,025.84	2,092,592.92	39° 59' 19.340 N	109° 23' 8.608 W
451.00	4.62	7.85	450.71	10.58	3.21	14,526,031.84	2,092,593.66	39° 59' 19,399 N	109° 23' 8.598 W
541.00	6.35	7.31	540.30	19.11	4.34	14,526,040.39	2,092,594,63	39° 59' 19,484 N	109° 23' 8.583 W
631.00	8.06	9.67	629.58	30.27	6.03	14,526,051.58	2,092,596,12	39° 59' 19,594 N	109° 23' 8.561 W
721.00	9.46	12.97	718.53	43.70	8.75	14,526,065.05	2,092,598.60	39° 59' 19.727 N	109° 23′ 8.526 W
811.00	11.16	14.05	807.08	59.35	12.52	14,526,080.77	2,092,602.09	39° 59' 19.881 N	109° 23' 8.478 W



SDI Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 922-360 PAD NBU 922-36J1CS

Wellbore: Design:

ОН ОН Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

Minimum Curvature

EDM5000-RobertS-Local

						원내 내가는 것 같아.	그 등 보이는 경우 말이 되는 거야.		보이 되게 많아들이 보다.
Measured			Vertical			Map	Map		
Depth (ft)	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
901.00	12.75	13,27	895.12	77.47	16.92	14,526,098.97	2,092,606.15	39° 59' 20,061 N	109° 23′ 8.421
991.00	13.78	10.63	982.72	97.67	21.18	14,526,119.24	2,092,610.04	39° 59' 20.260 N	109° 23' 8.367
1,081.00	15.25	9.49	1,069.84	119.88	25.10	14,526,141.52	2,092,613.57	39° 59' 20.480 N	109° 23' 8.316
1,171.00	16.60	8.41	1,156.39	144.28	28.94	14,526,165.98	2,092,616.96	39° 59' 20,721 N	109° 23' 8.267
1,261.00	18.14	9.31	1,242.28	170.82	33.08	14,526,192.60	2,092,620.63	39° 59' 20,983 N	109° 23' 8,214
1,351.00	19.57	9.14	1,327.45	199.53	37.74	14,526,221.38	2,092,624.77	39° 59' 21.267 N	109° 23' 8.154
1,441.00	19.62	5.76	1,412.24	229.45	41.66	14,526,251.37	2,092,628.14	39° 59' 21.563 N	109° 23' 8.104
1,531.00	19.03	7.51	1,497.17	259.03	45.09	14,526,281.00	2,092,631.03	39° 59' 21.855 N	109° 23' 8.059
1,621.00	19.18	6.47	1,582.21	288.27	48.67	14,526,310.30	2,092,634.09	39° 59' 22.144 N	109° 23' 8.013
1,711.00	19.07	5.05	1,667.25	317.60	51,63	14,526,339.69	2,092,636.52	39° 59' 22.434 N	109° 23' 7,975
1,801.00	17.95	5.18	1,752.59	346.06	54.18	14,526,368.19	2,092,638.55	39° 59' 22.715 N	109° 23' 7.943
1,891.00	18.08	5.23	1,838.18	373.78	56.70	14,526,395,95	2,092,640.57	39° 59' 22.989 N	109° 23' 7.910
1,981.00	17.70	6.84	1,923.83	401.27	59.61	14,526,423,49	2,092,642.97	39° 59' 23.261 N	109° 23' 7.873
2,071.00	17.21	10.85	2,009,68	427.93	63.74	14,526,450.22	2,092,646.63	39° 59' 23.525 N	109° 23' 7.820
2,161.00	17.45	8.52	2,095.60	454.35	68.25	14,526,476.72	2,092,650.65	39° 59′ 23.786 N	
2,251.00	16.63	7.34	2,181.65	480,47	71.89	14,526,502.90	2,092,653.82	39° 59' 24.044 N	109° 23′ 7.762
2,341.00	16.19	5.05	2,267.98	505.74	74,64	14,526,528.22	2,092,656.11	39° 59′ 24.294 N	109° 23' 7.718
2,431.00	16.29	8.95	2,354.39	530.71	77.71	14,526,553.23	2,092,658.73	39° 59' 24.540 N	109° 23' 7.680
LAST SE	I MWD SURF				,,,,,	14,020,000.20	2,092,000.73	39 39 24.340 N	109° 23' 7.640
2,522.00	13.63	6.31	2,442.30	553,98	80.88	14,526,576.56	2.002.664.47	000 501 04 770 11	
•	DI MWD PROD			00,00	00.00	14,520,570.50	2,092,661.47	39° 59' 24.770 N	109° 23' 7.600
2,612.00	13.06	359.50	2,529.88	E74.60	04.05	44.500.503.00			
2,703.00	12.59	355,90		574.69	81.95	14,526,597.28	2,092,662.17	39° 59' 24.975 N	109° 23′ 7.586
2,794.00	12.72		2,618.61	594.87	81.15	14,526,617.44	2,092,661.01	39° 59' 25.175 N	109° 23′ 7.596
2,794.00	13.72	0.82	2,707.40	614.78	80.59	14,526,637.34	2,092,660.08	39° 59' 25.371 N	109° 23' 7.603
2,975.00	15.72	1.74	2,795.01	635.35	81.05	14,526,657.92	2,092,660.18	39° 59' 25.575 N	109° 23' 7.597
3,065.00		5.74	2,883.07	658.25	82.60	14,526,680.84	2,092,661.31	39° 59' 25.801 N	109° 23' 7.577
3,156.00	15.47 13.45	6.45	2,969.80	682.16	85.15	14,526,704.79	2,092,663.43	39° 59' 26.037 N	109° 23′ 7.545
3,246.00		6.66	3,057.91	704.74	87.74	14,526,727.41	2,092,665.61	39° 59' 26.261 N	109° 23' 7.511
	13.45	7.71	3,145.44	725.50	90.36	14,526,748.22	2,092,667.85	39° 59′ 26.466 N	109° 23' 7.478
3,336.00	14.35	12.24	3,232.81	746.78	94.13	14,526,769.56	2,092,671.23	39° 59' 26.676 N	109° 23′ 7.429
3,427.00	13.54	11.84	3,321.12	768.22	98.71	14,526,791.09	2,092,675.42	39° 59' 26.888 N	109° 23' 7.370
3,518.00	11.87	14.92	3,409.89	787.69	103.30	14,526,810.64	2,092,679.66	39° 59' 27.080 N	109° 23' 7.311
3,608.00	9.27	15.26	3,498,36	803.64	107.59	14,526,826.65	2,092,683.67	39° 59' 27.238 N	109° 23' 7.256
3,699.00	6.52	22.44	3,588.49	815.48	111.50	14,526,838.57	2,092,687.35	39° 59' 27.355 N	109° 23' 7.206
3,789.00	5.99	27.30	3,677.95	824.38	115.60	14,526,847.54	2,092,691.30	39° 59' 27.443 N	109° 23' 7.153
3,880.00	4.10	29.20	3,768.60	831.44	119.37	14,526,854.67	2,092,694.93	39° 59' 27.513 N	109° 23' 7.105
3,970.00	2.60	29.57	3,858.44	836.02	121.94	14,526,859.30	2,092,697.43	39° 59' 27.558 N	109° 23' 7.072
4,061.00	2.27	29.50	3,949.36	839.39	123,85	14,526,862.69	2,092,699.27	39° 59' 27.591 N	109° 23′ 7.047
4,151.00	1.35	42.99	4,039.31	841.71	125.45	14,526,865.05	2,092,700.83	39° 59' 27.614 N	. 109° 23' 7,027
4,242.00	1.10	76.81	4,130.29	842.70	127.03	14,526,866.06	2,092,702.39	39° 59' 27,624 N	109° 23' 7,006
4,332.00	0.81	84.82	4,220.28	842.95	128.51	14,526,866.34	2,092,703.86	39° 59' 27.627 N	109° 23' 6.988
4,423.00	0.52	289.10	4,311.28	843.15	128.76	14,526,866.54	2,092,704.11	39° 59' 27,629 N	109° 23' 6.984
4,513.00	0.17	247.09	4,401.28	843,23	128.25	14,526,866.61	2,092,703.60	39° 59' 27,629 N	109° 23' 6.991
4,604.00	0.07	169.17	4,492.28	843.12	128.13	14,526,866.50	2,092,703.49	39° 59' 27.628 N	109° 23' 6.992
4,694.00	0.59	149.96	4,582.28	842,66	128.38	14,526,866.05	2,092,703.74	39° 59' 27.624 N	109° 23' 6,989
4,785.00	0.90	158.10	4,673.27	841.60	128.88	14,526,864.99	2,092,704.26	39° 59' 27.613 N	109° 23' 6.983
4,875.00	1.35	178.13	4,763.25	839.88	129.18	14,526,863.28	2,092,704.59	39° 59' 27.596 N	109° 23' 6.979
4,966.00	1.15	190.28	4,854.23	837.91	129.05	14,526,861.31	2,092,704.49	39° 59' 27.577 N	109° 23' 6.981
5,057.00	1.32	178.99	4,945.21	835,96	128.90	14,526,859.36	2,092,704.39	39° 59' 27.558 N	109° 23' 6,982
5,147.00	1.09	194.71	5,035.19	834.10	128.70	14,526,857.49	2,092,704.22	39° 59' 27.539 N	109° 23' 6.985
5,238.00	1.74	192.06	5,126.16	831.91	128.20	14,526,855.30	2,092,703.75	39° 59' 27.518 N	
5,328.00	0.37	303.14	5,216.15	830.73	127.67	14,526,854.11	2,092,703.73		109° 23′ 6.992
5,419.00	1.60	47.23	5,307.13	831.76	128.35	14,526,855.15		39° 59' 27.506 N	109° 23′ 6.998
5,509.00	1.07	61.69	5,397.11	833.01	130.02	14,526,856.43	2,092,703.91	39° 59' 27.516 N	109° 23′ 6.990
5,600.00	1.17	78.13	5,488.09	833.60	131.67	14,526,857.05	2,092,705.55 2,092,707.20	39° 59′ 27.528 N 39° 59′ 27.534 N	109° 23' 6,968 109° 23' 6,947



Survey Report - Geographic

SDI



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12

Well:

NBU 922-360 PAD NBU 922-36J1CS

Wellbore: Design:

ОН ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-36J1CS

GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139) GL 4968 & KB 14 @ 4982.00ft (ENSIGN 139)

True

Minimum Curvature

EDM5000-RobertS-Local

Measured			Vertical			Map	Мар		
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
5,691.00	1.03	78.02	5,579.08	833,96	133.38	14,526,857.44	2,092,708.90	39° 59' 27,538 N	109° 23' 6,925
5,781.00	1,12	112.10	5,669.06	833.80	134.99	14,526,857.31	2,092,710.51	39° 59' 27.536 N	
5,872.00	0.43	238.11	5,760.06	833.29	135.52	14,526,856,80	2,092,711.05	39° 59' 27.531 N	109° 23' 6.904
5,962.00	1.21	317.74	5,850.05	833.81	134.60	14,526,857,31	2,092,711.03	39° 59' 27.536 N	109° 23' 6.897
6,053.00	1.27	317.56	5,941.03	835,27	133,27	14,526,858.74	2,092,708.76	39° 59' 27,551 N	109° 23′ 6.909
6,143.00	1.53	1.52	6,031.00	837.20	132,63	14,526,860.67	2,092,708.09	39° 59' 27.570 N	109° 23' 6.926
6,234.00	1.14	0.01	6,121.98	839.32	132.66	14,526,862.79	2,092,708.08	39° 59' 27.591 N	109° 23' 6,93
6,324.00	1.67	42.00	6,211.95	841.19	133.54	14,526,864.67	2,092,708.93	39° 59' 27.609 N	109° 23' 6.934
6,415.00	1.49	86.81	6,302.92	842.24	135.61	14,526,865.76	2,092,710.97	39° 59' 27.620 N	109° 23' 6.92
6,505.00	1.76	113.27	6,392.89	841.76	138.05	14,526,865.33	2,092,710.97	39° 59' 27.615 N	109° 23' 6,896 109° 23' 6,868
6,596.00	1.92	127.83	6,483.84	840.28	140.53	14,526,863,88	2,092,715.94	39° 59' 27.600 N	
6,686.00	1.42	144,87	6,573.80	838.44	142.37	14,526,862.08	2,092,717.80	39° 59' 27.582 N	109° 23' 6.83
6,777.00	0.67	205.50	6,664.79	837.04	142.79	14,526,860.69	2,092,717.80	39° 59' 27.568 N	109° 23' 6.80
6,867.00	0.84	184.16	6,754.78	835.90	142.51	14,526,859.55	2,092,717.99	39° 59' 27.557 N	109° 23′ 6.80
6,958.00	0,86	192.73	6,845.77	834.57	142.31	14,526,858.21	2,092,717.82		109° 23' 6.80
7,048.00	0,94	168.82	6,935.76	833.19	142.31	14,526,856.83	2,092,717.84	39° 59' 27.544 N 39° 59' 27.530 N	109° 23' 6.81
7,139,00	0.09	32.76	7,026.76	832,52	142.49	14,526,856.16	2,092,717.84		109° 23' 6.810
7,229.00	0.25	94.46	7,116.76	832.56	142.72	14,526,856.21	2,092,718.27	39° 59' 27.524 N	109° 23' 6.808
7,320.00	1.07	155.73	7,207.75	831.77	143.27	14,526,855.43	2,092,718.83	39° 59' 27.524 N 39° 59' 27.516 N	109° 23′ 6.80
7,410.00	1.58	174.35	7,297.72	829.77	143.74	14,526,853.44	2,092,719.33		109° 23' 6.79
7,500.00	0.97	210.04	7,387.70	827.88	143.48	14,526,851.54	2,092,719.11	39° 59' 27.496 N	109° 23' 6.79
7,591.00	1.23	232.98	7,478.69	826.62	142.31	14,526,850.26	2,092,719.11	39° 59' 27.478 N 39° 59' 27.465 N	109° 23' 6.79
7,682.00	1.32	224.19	7,569,66	825,28	140.80	14,526,848,90	2,092,716.48		109° 23' 6.81
7,772.00	1.06	223.22	7,659.65	823.93	139.51	14,526,847.52	2,092,715.21	39° 59' 27.452 N	109° 23' 6.83
7,862.00	0.26	171.10	7,749.64	823.12	138.97	14,526,846.71	2,092,714.69	39° 59' 27.439 N	109° 23′ 6.846
7,953.00	0.47	110,49	7,840.64	822,79	139.35	14,526,846.38	2,092,715.07	39° 59' 27.431 N	109° 23' 6.85
8,043,00	1.38	149.95	7,930.63	821.72	140.24	14,526,845.33	2,092,715.98	39° 59' 27.427 N	109° 23' 6.84
8,134,00	1.79	154.74	8,021.59	819,49	141.40	14,526,843.12	2,092,715.98	39° 59' 27.417 N	109° 23' 6.837
8,224,00	1.32	175.06	8,111,56	817.18	142.09	14,526,840.82		39° 59' 27.395 N	109° 23' 6,822
8,315.00	1.08	184.91	8,202.54	815.29	142.09	14,526,838.93	2,092,717.91 2,092,717.96	39° 59' 27.372 N	109° 23' 6.81:
8,405.00	0.97	170.05	8,292.52	813,69	142.16	14,526,837,33	2,092,717.96	39° 59' 27.353 N	109° 23' 6.81:
8,496,00	1,28	169.52	8.383.51	811.93	142.48	14,526,835.58	2,092,718.40	39° 59' 27.337 N	109° 23' 6.812
8,586.00	1.14	172.86	8,473.49	810.06	142.46	14,526,833.71	2,092,718.72	39° 59' 27,320 N	109° 23' 6.808
8,677.00	0.88	164.95	8,564.47	808.48	143.07	14,526,833.71	2,092,718.72	39° 59' 27,302 N	109° 23' 6.804
8,748.00	0.62	116.87	8,635,47	807.78	143.55	14,526,831.45		39° 59' 27.286 N	109° 23' 6.800
•	I MWD PROD			307.70	143.33	14,020,031.43	2,092,719.54	39° 59' 27.279 N	109° 23' 6,79
8.805.00	0.62	116.87	8.692.46	807.50	144.10	14,526,831.18	2,092,720.10	39° 59' 27,276 N	109° 23′ 6.78′

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coord +N/-S (ft)	linates +E/-W (ft)	Comment
441.00 191.00	191.00	0.32	0.77	FIRST SDI MWD SURFACE SURVEY
2,431.00	2,354.39	530.71	77.71	LAST SDI MWD SURFACE SURVEY
2,522.00	2,442.30	553.98	80.88	FIRST SDI MWD PRODUCTION SURVEY
8,748.00	8,635.47	807.78	143.55	LAST SDI MWD PRODUCTION SURVEY
8,805.00	8,692.46	807.50	144.10	SDI PROJECTION TO TD

Observation of December 1		
Checked By:	Approved By:	Date:
		Date.

Sundry Number: 47995 API Well Number: 43047516000000

	STATE OF UTAH				FORM 9
ι	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND M		6	5.LEASE ML-22	DESIGNATION AND SERIAL NUMBER: 650
SUNDR	RY NOTICES AND REPORTS	S ON	WELLS	6. IF IND	AN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form			r CA AGREEMENT NAME: AL BUTTES		
1. TYPE OF WELL Gas Well				1 -	NAME and NUMBER: 22-36J1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	9. API NUMBER: 43047516000000				
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 6 1NATIERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1247 FSL 2113 FEL		COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSE Section: 3	STATE: UTAH				
11. CHEC	K APPROPRIATE BOXES TO INDIC	ATE N	ATURE OF NOTICE, REPOR	T, OR O	THER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	ACIDIZE		ALTER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN		FRACTURE TREAT		NEW CONSTRUCTION
1/20/2014	OPERATOR CHANGE		PLUG AND ABANDON		PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	П	TEMPORARY ABANDON
	TUBING REPAIR		/ENT OR FLARE		WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF		SI TA STATUS EXTENSION		APD EXTENSION
Report Date:			SI IA STATUS EXTENSION		
	WILDCAT WELL DETERMINATION	V	OTHER		Production Enhancement
The operator cond the subject well on	completed operations. Clearly shoucted the following workown 1/20/2014. Please see the rell history for details. That	ver/w e atta	ellbore cleanout on ached chronological	oi FOI	Accepted by the Utah Division of I, Gas and Mining R RECORD ONLY Tebruary 19, 2014
 		·			
NAME (PLEASE PRINT) Teena Paulo	PHONE NUM 720 929-6236	VIBER	TITLE Staff Regulatory Specialist		
SIGNATURE N/A			DATE 2/19/2014		

Sundry Number: 47995 API Well Number: 43047516000000

US ROCKIES REGION											
Operation Summary Report											
Well: NBU 922-36J1CS ORANGE Spud Date: 10/28/2011											
Project: UTAH-U	INTAH			Site: NBU	J 922-36C	PAD			Rig Name No: SWABBCO 6/6		
Event: WELL WO	ORK EXPE	NSE		Start Date	e: 1/16/20	14			End Date: 1/20/2014		
Active Datum: RKB @4,982.00usft (above Mean Sea Level)					UWI: SW/SE/0/9/S/22/E/36/0/0/26/PM/S/1247/E/0/2				47/E/0/2113/0/0		
Date	Tir Start		Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
1/16/2014	12:00 -	17:00	5.00	MAINT	31	ı	Р		MIRU, BLOW DWN WELL, KILL WELL, 20 BBLS TBG, 20 BBLS CSG, NDWH, NU BOP'S, UNLAND TBG, PU TBG, TIH TO PBTD TO CK FOR FILL.POOH LAY DWN 17 JTS, SWIFN		
1/17/2014	7:00 -	7:30	0.50	MAINT	48		Р		MILLING		
	7:30 -	18:00	10.50	MAINT	45	A	Р		RU CUTTERSW, TIH TO 7818', PERF TBG, RD CUTTERS, RU PRS, SCAN TBG OOH, REPLACE 34 JTS TBG, PU MILL TIH TO PBTD 8550' FOR C/O,POOH LAY DWN 18 JTS TBG, SWIFN		
1/20/2014	7:00 -	7:30	0.50	MAINT	48		Р		TIH TBG		
	7:30 -	17:00	9.50	MAINT	31	I	Р		KILL WELL, POOH TBG, STD BACK TBG, ND BIT, NU SN, TIH TO EOT, BROACH TBG TO SN, LAND TBG, ND BOP'S, NU WH, RDMO		

2/18/2014 7:20:31AM 1